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ABSTRACT

Abstracts of the major research studies, surveys, and expert analyses used in the process of designing and writing the Report on Sex Discrimination in Education are contained in this document. The author has emphasized (though not entirely restricted coverage to) materials published within the last five years and primary sources presenting original research. Also included, however, are some secondary analyses that have brought new concepts or raised new questions for primary research studies, and commentary by persons active in research and analysis in their own special fields. To facilitate utilization of the abstracts, a subject index is provided. Two bibliographical appendixes are included: the first lists some of the studies that have been made by groups concerned with the status of women in various academic disciplines, and the second presents studies of the status of women that were conducted at various postsecondary educational institutions. (Author/MLF)

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April, 1976

SEX DISCRIMINATION IN EDUCATION:

A Study of Employment Practices Affecting Professional Personnel

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VOLUME II: ANNOTATED BIBLIOGRAPHY

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Prepared by: Roslyn D. Kane
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PREFACE

Volume II of the Report on Sex Discrimination in Education contains abstracts of the major research studies, surveys, and expert analyses used in the process of designing and writing the report. We have emphasized (though not entirely restricted coverage to) materials published within the last five years and primary sources presenting original research. We have also included, however, some secondary analyses which have brought new concepts or raised new questions for primary research studies. We have also included some commentary by persons active in research and analysis in their own special fields.

In order to facilitate utilization of the abstracts, we have provided a subject index so that readers may locate additional material in any area in which they may be particularly interested. The descriptors are used as subject references, followed by the relevant page numbers in the annotations to locate material on the subject.

Volume II also includes two bibliographical appendices: the first lists some of the studies that have been made by groups concerned with the status of women in various academic disciplines, and the second presents studies of the status of women that were conducted at various postsecondary educational institutions.

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I. A. ABSTRACTS

Alexandria (Virginia) Ad Hoc Committee on Women, Final Report to the Alexandria City Council and the Citizens of Alexandria, City of Alexandria, Alexandria, Virginia, March 1974, 145 pp.

Descriptors: Administrative Personnel (Elementary and Secondary), Elementary and Secondary School Teachers, Hiring and Promotion Practices.

Type of material: Research study

Population: Survey of selected areas affecting all women in Alexandria 16 years of age and over; particular attention to conditions affecting women in city employment and in the local schools.

Date: Material gathered during 1973.

Method: Material gathered affecting employment of school personnel - through a public hearing, and examination of city and school personnel and budget information.

Findings: A statistical analysis of the positions men and women hold within the city school system showed that although women outnumber men by 3 to 1 in the schools, the ratio is reversed at the administrative level. Although women hold two-thirds of the elementary principalships, they hold only three assistant principalships at secondary level, and no full principalships at that level. The superintendent, deputy, and assistant superintendents are all men: only two of the ten directors of services are women. There were fewer women in the administrative office in 1973 than in 1968. Promotion is faster for men, and qualifications for administrative positions are not clearly or consistently stated. Women assistant principals at the secondary level all have master's degrees while only half of the men in that position have them. Women, thus, are not included in the school system's policymaking positions.

It is recommended that the school administration make efforts to recruit and promote qualified women, bring the ratio of women administrators into line with their ratio as teachers, and adopt an affirmative action plan. Standardized and well publicized job descriptions and offerings should be circulated. More men elementary teachers are also needed so that young children see men as well as women in the teacher role.

Reports and recommendations are also made regarding city employment, school textbook content, school athletic and sports programs, and local credit, housing, and employment opportunities for all local women.

No bibliography is appended.

American Association of University Professors, "Two Steps Backward: Report on the Economic Status of the Profession, 1974-75," AAUP Bulletin, Summer 1975.

Descriptors: Academic Rank, Postsecondary Institutions, Salaries, Tenure.

Type of material: Statistical Report.

Subject: Economic status of professors in U.S.

Populations: Professor, associate and assistant professors, instructors and lecturers in 2- and 4-year colleges and universities in U.S.

Date: Academic year 1974-75; annual survey.

Method: A questionnaire survey sent to 2,220 accredited universities and 2- and 4-year colleges in the U.S. 1,548 (or 74%) of total group responded, but only 63% of 2- year colleges. Of total responses, 90% provided data on sex; 80% provided data on tenure but less than 50% of 2-year colleges did so.

Data available: Compensation for faculty: by rank (professor, associate professor, assistant and instructor); by increase and percent of increase; by average compensation, salary, fringe benefit; by salary range (comparing 1st and 9th deciles of salary spread) by category of institution (university, college granting advanced degrees, college granting only baccalaureate degree and 2-year college) and by affiliation (public, private and church-related). Sex of faculty by rank, category of institution and affiliation, percentage of differences in salary between men and women, and by tenure.

No bibliography appended.

Amsden, Alice H., and Moser, Collette, "Job Search and Affirmative Action," American Economic Review, Vol. 65, No. 2, May 1975.

Descriptors: Admission Policies, Employment Opportunities, Labor Market, Salaries, Affirmative Action, Discriminatory Practices.

Type of Material: Research report

Subject: Employment search and opportunities for men and women economists

Population: Men and women economists, members of the American Economics Association (AEA)

Date: Data collected 1974-75, regarding participation in the 1973-74 job market

Method: Preliminary data from the survey made by the Committee on the Status of Women in the Economics Profession of the AEA. Report is based on 710 questionnaires returned by 55% of women economists registered with CSWEP, the first 264 questionnaires returned by men economists in matched cohorts, and a special male job market sample. The samples of men were chosen from names supplied by the women and from files of economics department chairmen.

The second analysis of the same questionnaire survey focused on perception of change since affirmative action plans were made.

Findings: Overall, the ratios of job offers resulting from interviews were almost identical for both men and women. The hypothesis that the job search costs of women were higher because employers interviewed women without any intention of hiring them is not supported. On the other hand, even in the presence of an intensification of affirmative action, the job offer record of women economists was not better than that of men.

Men had a slightly better job offer record with private university and college employers while women had a better job offer record with business employers.

A comparison of job offer records of those persons who obtained their Ph.D.'s from the top ranking schools of economics indicates that the women graduates had a slightly better job offer record than the men did. Women graduates may be of higher quality, however, as a result of the greater selectivity resulting from sex bias in entrance requirements. The quality of faculty did not decline in the presence of affirmative action; women Ph.D. graduates from relatively less prestigious schools did not have a better job offer record than did men graduates of the same academic institutions, suggesting that neither sex had greater opportunities for employment than the other. Overall, the average numbers of interviews for men and women were quite similar. The authors recognize the need for further research utilizing other variables.

In a second analysis, economists, most of whom were situated in institutions with affirmative action plans for women, were asked about their perceptions of changes in areas of employment related to affirmative action implementation or of any continuing differential treatment based upon sex. The most frequent observation to each of the questions related to employment conditions for women economists was that no change had occurred. Only in the area of increased administrative responsibility and committee assignments did the number of women respondents indicating change almost equal the number observing no change. Women saw the least amount of change in the area of fringe benefits.

A significant proportion of the women respondents felt that they had been subjected to discriminatory treatment even since affirmative action was presumably being implemented.

Report concludes that there has been no reversal of attitudes since advent of affirmative action.

No bibliography appended.

Apter, Julia T., "Increasing the Professional Visibility of Women in Academe: A Case Study," in Furniss, W.T., and Graham, P.A., Women in Higher Education, American Council on Education, Washington, D.C. 1974, pp. 104-109.

Descriptors: Policymakers, Professional Women, Discriminatory Practices

Type of material: Case study

Subject: Women on advisory panels at National Institutes of Health

Date: Work from September 1971 to midyear 1972.

Narrative: Positions on advisory panels of the many granting agencies in Washington gain prestige, professional contacts, and opportunities for appointees, yet few women obtain these posts. Of 377 scientists on review panels at the National Science Foundation, only 7 were women; of over 4,500 positions on the National Research Council-National Academy of Sciences, 53 were held by women; of 1,953 such positions at National Institutes of Health (NIH), 28 were held by women (these figures as of July 1971).

A Coalition of Professional Women's Organizations was formed to attempt to raise women's presence on the review panels of the NIH. The first appeal was made in September 1971. (There were some 2,000 such positions at NIH.) The Coalition asked for, and obtained, a freeze on "about 500" vacancies available for 1972, but later discovered that there were only about 350 vacancies for the women to compete for. In March 1972 it was reported that 207 women had been appointed but names were available for only 131; some 300 additional appointments were promised but only about 60 have so far been made.

To identify women qualified for the appointments, directories of relevant disciplines were searched, and in addition, persons whose terms were scheduled to end in 1972 were sent a form requesting the names, degrees and addresses of women coauthors and collaborators. In all, about 1,000 qualified women were identified.

Past discrimination against women is difficult to prove. What can be done is to point out the size of the pool, areas and levels of competence of women candidates for such appointments. Complaints about the small supply of competent women scarcely seem justified.

Registries demonstrate the presence of qualified women and the Coalition plans to develop its registry, hoping it may become the "nucleus for much larger registries of the some 50,000 women scholars in all fields in this country."

No bibliography is appended.

Arter, Margaret H., "The Role of Women in Administration in State Universities and Land-Grant Colleges," National Association of State Universities and Land-Grant Colleges, Circular 182, 1972.

Descriptors: Administrative Personnel (Postsecondary), Higher Education

Subject: Administrative women in state universities and land-grant colleges

Population: All state universities and land-grant colleges belonging to the National Association of State Universities and Land-Grant Colleges (NASULGC).

Date: Academic year 1970-71

Method: Two questionnaires were utilized--form 1 was sent to presidents or chief officers of multi-campus institutions, and form 2 to women in top-level administrative positions in these institutions who were identified in the first form. Questionnaires sent to entire population of 118 institutions, members of NASULGC, and 146 usable responses were received for form 1 (percent of response not given); 101 responses for form 2 were received from women in such high-level positions as president, provost, chancellor, vice president, dean (other than nursing or home economics), business officer, and director of an academic program or institute.

Chi square test was used in analysis of data from form 2 to determine the relationship between two variables in the population of women administrators when compared by positions, academic rank and salary.

Findings: The approximate ratio of men to women faculty in these institutions is 5 to 1. Seventeen states (one half the responding institutions) had no women in high-level positions: Arizona, Arkansas, Connecticut, Hawaii, Idaho, Kansas, Kentucky, Maine, Maryland, Mississippi, Montana, New Hampshire, New Mexico, Oklahoma, South Dakota, West Virginia, and Wyoming. The median number of men in such jobs was 18, of women zero.

Sixty percent of the institutions did not have women administrators who met the criteria of the study, and over half had not appointed such a woman in the five years prior to the study. Over 90% said, however, they would consider qualified women for top administrative posts.

In profile, the top-level women administrators are: over 50 years of age, have no children (those who have children have children over 18, away at school or no longer at home). Most have the M.A. degree, attained without financial aid (those with Ph.D. generally had scholarship or other financial assistance). They have generally held from one to five positions and served in one to three institutions, have worked in one state and not changed geographic regions. They plan to remain in administration, and those who are married have husbands with favorable attitudes toward their wives' work.

No bibliography appended.

Astin, Helen S., "The Talent Pool--Where Are All the Talented Women?," Women in Higher Education, eds. Furniss, W. T., and Graham, P., Washington, D.C., American Council on Education, 1974, pp. 95-99.

Descriptors: Career Choices, Professional Women, Employment Opportunities, Doctorates.

Type of material: Description of method used to compile a roster of professional women.

Subject matter: A roster to facilitate the recruiting of professional women.

Population: All women members of the American Psychological Association (APA).

Date: Roster compiled January 1972; survey on use in fall of 1972.

Method: Information for the roster gathered by means of a one-page questionnaire mailed to over 7,000 women members of APA; 70% responded. The names were listed by professional specialty, with degree, year of degree, and two primary work activities (e.g., research, teaching, etc.). A 10% random sample of those who had requested the roster surveyed in the fall. Most had used the roster as a reference source or as a means of becoming acquainted with the pool rather than as a means of recruiting.

Discussion: The author is concerned with the underemployment of professional women rather than with their mere participation in the labor force. The pool of women, though small compared to that of men, (about 30,000 women compared to about 244,000 men of those receiving the doctorate between 1950 and 1970) consists of able and committed women who have not been able to make contributions consistent with their abilities. The women doctorates do not differ greatly from the men; for example, they follow a mobility pattern similar to that of men doctorates. Of the 1957 and 1958 women doctorates, 45 percent have remained with their original employer, and 30 percent have changed jobs only once. Of the men in the 1955 doctoral cohort, 52 percent stayed on the job for five years and 33 percent changed jobs once.

The author recommends that a national roster of qualified women be made available to people wanting to identify women for jobs and advisory posts. Work could be based on the experience of setting up such a roster for women psychologists.

No bibliography appended.

Astin, Helen S., The Women Doctorate in America, Russell Sage Foundation, New York, New York, 1969, 196 pages

Descriptors: Career Choices, Career Development, Doctorates

Type of material: Research report

Subject matter: Career patterns of women doctorates

Population: Sample drawn from women doctorates in the United States who received their degrees in 1957 and 1958.

Date: Questionnaires sent December 1965 and February 1966, followups to April 1966; six autobiographical sketches obtained May 1968.

Method: Roster of women research doctorates obtained from the National Academy of Sciences (NAS) for years 1957 and 1958 (these represented 108 United States institutions and 1,979 names). Of those receiving questionnaires 1,547 (79%) returned them; 106 returned followup postcards. Excluding deceased persons and nondelivered mail, response rate reached 89%. Investigation of nonrespondents showed many to be foreign born or foreign residents.

Questionnaire data supplemented by NAS demographic information and high school performance data gathered by Harmon.

Analysis: Four major methods: frequency distributions, cross tabulations to compare women in different fields, stepwise multiple regression, and detailed examination of a 10% random subsample to amplify broad coding of career history.

Major variables: Demographic, professional, and employment characteristics of women doctorates.

Findings: Undertaken to examine "folklore" about highly educated women, this work reveals that such women are very productive professionally. Among women who received doctoral degrees in 1957 and 1958, 91% were in the labor force in 1965 at the time of this study, and 81% were working full time. Women who interrupted their careers did so because of childbearing and childrearing; the median length of time for such interruptions was 14 months. The majority of the working women were teaching, 70% at the college level and 10% in junior colleges or at lower educational levels. Over one-third reported that various discriminatory practices had hindered their professional progress. Those who felt they had been discriminated against by employers because of sex were also those who were most productive (they published more), most active professionally, and the highest earners, earning more than the median income of $11,330.

About half the women studied had domestic help, but most cited the inability to find adequate household help as the greatest obstacle to their career development. Autobiographical sketches indicated that parents had considerable influence on the women's career development. Parents' behavior, high expectations, and encouragement of their children, and the parents' own philosophies were important factors in the women's life decisions.

Over half the women had been or were still married at the time of the survey, the married women had smaller families than women in general. These and other findings suggest needed changes, including an increase in educational and guidance efforts designed to encourage young women to achieve advanced training in specialized fields and the establishment of special scholarships in career fields that women usually do not enter. Also needed are an increase in acceptability and availability of part-time study and employment; an increase in the number of day-care centers; introduction of tax laws that permit deductions for household workers, and the elimination of discriminatory practices against women in higher education roles and the world of work.

The data also suggest new areas for research, including the use of a wider variety of early personal and environmental variables in the study of occupational and educational development of women; further research into the impact of parents' personality and aspirations on the occupational and educational development and aspirations of women. More research is also needed into the dynamics and general characteristics of career-oriented women in order to increase the understanding of the meaning of work and occupational achievement for all women. Finally, research is needed into the early life experiences that provide professional women with the high self-esteem necessary for professional achievement. (Annotation from Astin, Suniewick, and Dweck, Women, a Bibliography.)

A bibliography of 37 items is appended.

Astin, Helen S., and Bayer, A., "Sex Discrimination in Academe," Educational Record, Vol. 55, No. 2, Spring 1972, pp. 101-118.

Descriptors: Women's Working Patterns, Faculty, Salaries, Financial Aid, Postsecondary Institutions

Type of Material: Research Report

Subject: Sex discrimination and academic rewards

Population: Sample of college and university teaching faculty

Date: Data gathered in Spring 1969.

Method: See abstract for Bayer, Alan, College and University Faculty, Council on Education, Research Report, Vo. 5, No. 5, 1970, for sampling method for the full study. For this report, faculty with a regular appointment, teaching nine or more class hours, and who responded to questionnaire items on sex, salary, and rank were selected. An eligible sample of 21,856 (4,583 women and 17,273 men) was derived and a final sample of 3,438 women and 3,454 men was selected.

Three primary criterion variables (rank, tenure, basis institutional salary) were selected and four sets of predictor variables (demographic characteristics, educational background, professional and work activities, characteristics of the employing institutions). Stepwise multiple regression analysis was carried out to assess the strength of each variable. After significant correlates of the criterion measures were controlled for, the extent to which sex explained the residual variance was determined. Also, to learn if the same predictors are equally applicable to explain differentials among men and among women, stepwise regression was used separately by sex.

Findings: The five most important predictors for rank are degree, productivity, years of employment, type of employing institution, and time spent in administration; however, even after control for the predictor variables, it was found that women were generally promoted less quickly than men. Tenure is so strongly determined by rank that sex as a variable ceased to be important. The three most important predictors of salary are rank, productivity, and type of institution.

Fewer variables are significant in predicting salary for women than for men, and variables do not always have the same values for women as for men. For example, large families predict rank positively for men but not for women; fellowship support helps to predict higher salary for women, but is not important for men. Highest degree from one of the top 12 universities is important for men, not for women. Specialization in the arts and humanities predicts lower salary for both sexes. However, holding qualifications and work settings constant still reveals differentials between rewards accorded to men and to women. To reward women on a scale commensurate with their male counterparts would require a "compensatory average raise of more than $1,000."

In order for women to achieve academic success, they should turn their interests away from teaching and toward research and publication. Higher education must go beyond its institutional sexism which restricts goals and aspirations of women even before they enter the academic world.

No bibliography appended.

Attwood, Cynthia L., Women in Fellowship and Training Programs, Project on the Status and Education of Women, Association of American Colleges, Washington, D.C., November 1972, 32 pages.

Descriptors: Financial Aid

Type of Material: Research report

Subject: Women's participation in fellowship and training programs

Population: 68 fellowship programs

Date: Information gathered beginning June 1972

Method: Sixty-eight fellowship programs sponsored by government agencies, private organizations and foundations chosen mainly on the basis of size and national visibility were asked to provide data on women applicants and recipients, recruiting and selection procedures, content of application forms, composition of selection boards, and policies against sex discrimination. All but a few (percentage not specified) responded.

Findings: About 80% of the fellowships and awards go to men; in some of the most competitive, over 90% go to men. In only a few, have women recipients comprised 30% or more. Forty programs provided data on the number of applicants: in 12 of these, fewer than 10% were women and in all but 11, less than 25% were women. More women applied in fields of humanities and social science than in natural science or in educational administration.

In about 28% of the programs, the percentage of women recipients was less than that of applicants. In about 28% of the programs, the percentage of women recipients was about the same as that of applicants, and in 45% the percentage of women recipients was significantly higher than that of applicants.

Women play only a small part in the selection process. Many boards had no women members, most had less than 15%. In only four were women more than one-third of the selection committee members.

Women are more likely to be successful in applying to small programs than the larger ones, and in applying to those that have neither very large nor very small percentages of women applicants.

Recommendations: Increase the number of women who apply by developing an affirmative action plan; redesign the promotional materials, give wider publicity to the programs calling specific attention to the program's interest in women, and allow part-time use of awards. Increase the number of women who receive awards by increasing the number of women on the selection boards; review selection policies, and review dependency allowances. Minority women should also be recruited, and means should be discovered to put the names of qualified women before selection agencies.

Fifteen notes and references appended.

Bayer, Alan E., Office of Research, American Council on Education College and University Faculty: A Statistical Description, Research Report, Vol. 5, No. 5, 1970, 1 Dupont Circle, Washington, D.C.

Descriptors: Academic Rank, Academic Disciplines, Faculty, Attitudes of Faculty

Type of Material: Statistical report

Subject: Characteristics and educational and political attitudes of college and university faculty

Populations: Faculty teaching a degree credit course during 1968/69 academic year in colleges and universities in U.S.

Date: First questionnaire mailing, March 1969.

Method: A 12 page questionnaire was sent to 100,315 faculty selected by random sampling (six in seven) from rosters of faculty in 303 colleges and universities selected by dispropationate random sampling(to obtain adequate numbers of various types) from the instititutions which participated in 1966 Cooperative Institutional Research Program; 60,028 faculty members (or 59.8% of total questioned) responded.

Data Available: In view of rapid change taking place in American higher education, the Carnegie Commission on Higher Education conducted a national survey to study current problems and developments. Data on faculty is given by demographic characteristics (age, race, background) and professional background including major field, rank and salary; academic activity; and attitudes toward education, other faculty, profession, and social issues and campus activities by sex and by type of institution (university, 4-year and 2-year colleges).

No bibliography appended

Bayer, Alan E., *Teaching Faculty in Academe: 1972-73*, American Council on Education, Office of Research, *ACE Research Reports*, Vol. 8, No. 2, August 1973.

Descriptors: Attitudes of Faculty, Academic Rank, Faculty, Higher Education, Salaries, Academic Disciplines.

Type of Material: Survey research.

Population: Sample drawn from teaching faculty in higher education.

Date: Questionnaire sent December 1972; follow-ups through April 1973; cutoff for processing mid-June 1973. (A follow-up of the ACE 1968-69 survey of parallel format.)

Method: A total population of 2,433 institutions of higher education arrayed into 35 cells based on institutional type, control, selectivity, and affluence; institutions of 1968-69 study again chosen: 78 universities, 181 4-year colleges, and 42 junior and community colleges. Their faculties ranged from 20 to about 4,500.

Faculty rosters of the American University Press Services and others resulted in a list of 108,722 persons; of these 53,034 (49%) returned usable responses, and 42,345 respondents were identified as current *teaching* faculty. Weights were developed so that responses could represent the entire population of college and university teaching faculty.

Table (Appendix F) gives standard errors of response percentages for groups of various size.

Data available: By sex and by type of institution (university, 4-year college, 2-year college), data reported for employment status, rank, hours worked, number and type of classes, attitudes toward education; also for field, degrees earned, personal characteristics, involvement in research or other scholarly activities, and salary.

Findings: As a result of tighter job market, faculties tend to be older than found in the 1968-69 study; more hold senior rank and are tenured. Blacks have increased only slightly and women have not so much increased as have been re-distributed with fewer in the colleges and more in the universities. One-fourth of all faculty had interrupted careers for at least one year for military or family reasons, and more men than women had done so. Immediately prior to employment at their present institution, only one-fourth were engaged in college-level teaching.

Appended: Institutions represented, cover letters for questionnaire mailings, the questionnaire, and coding forms.

Bibliography of 17 items.

Bayer, Alan E., and Astin, H., "Sex Differences in Academic Rank and Salary Among Science Doctorates in Teaching," Journal of Human Resources, Vol. 3, No. 2, Spring 1968, pages 191-200.

Descriptors: Academic Rank, Affirmative Action, Faculty, Salaries. Tenure, Field of Specialization.

Type of Material: Research Study

Subject: Salary Differentials

Population: Ph.D. recipients teaching in postsecondary institutions

Date: 1964 - National Science Foundation, 6th biennial nationwide survey of scientific and technical personnel

Method: From NSF data a subsample selected: doctoral recipients in natural and social sciences doing primary work in teaching: 1662 men who received doctorates in 1958-59, 103 women who received the degree in 1957-58 (additional year to correct for likelihood of interruptions in women's careers); plus sample of 1112 men and 92 women receiving doctorates in 1962. Sample thus controlled for education, time in labor force, and work setting.

Variables: Rank treated as dichotomy - high rank: associate or full professor; low rank: assistant professor, instructor, or lecturer. Salary data based on academic year (9 - 10 months), adjusted if given on 12-month basis.

Statistical significance of data is reported for each individual table.

Background: Data from a 1966 National Education Association (NEA) survey suggest that salary inequity is practiced more severely than is discrimination regarding tenure or promotions, reporting 1965-66 salaries of women in higher education as 16.6 percent lower than those of men. These differentials are more marked in the large universities. Although reports suggesting sex discrimination in salaries exist, the conclusions are not justified without controlling for the relevant variables that affect rank and salary. These data also indicate that salary differentials are most prevelant in large universities, where women in the same institutions receive less than 80 percent of the men's salaries, and least prevelant in state colleges where they receive 91 percent.

Findings: Bayer and Astin propose that many recent findings are refutable if relevant variables are not controlled. These variables include work activity, work setting, length of time in the labor force, and field of discipline. These factors are related to sex. Women spend less time in the labor force and are less likely to have research or administrative positions than men. They are concentrated in the humanities and social sciences, while men choose the physical sciences more frequently.

Within each major field, academic setting, and career length, no significant sex differences emerge at the point of entry into the profession. It was found that in each major field area, academic setting, and career length category, no significant sex discrimination in academic rank emerged. Women in natural science in universities tended to hold starting positions comparable or higher in rank than those of men. At a later point in their career (5-6 years), however, major differences appear by field. In the natural sciences, women who have continued teaching tend to achieve a higher rank than do their male colleagues. In the social sciences, the opposite is true. However, within each work setting, field, and rank category, women earn lower salaries. The salaries of women natural scientists show greater discrepancies from those reported by men then do reported salaries of women social scientists. The data suggest inequity even when a number of sex- and salary-related contingencies are removed.

Eight references are given.

Bayer, Alan E., and Astin, H., "Sex Differentials in the Academic Reward System: What changes have there been since the implementation of federal antibias regulations?" Science, Vol. 188, No. 4190, May 23, 1975, pp. 796-802.

Descriptors: Academic Rank, Affirmative Action, Faculty, Salaries, Tenure

Type of Material: Research study

Subject: Sex differences in academic rewards

Population: Sample drawn from college and university teaching faculty

Date: Academic year 1972-73 (parallels a study of 1968-69)

Method: Subsample drawn from data gathered by American Council on Education (ACE) in a general survey of 301 colleges and universities with over 100,000 faculty, in a nationally representative sample; of 53,034 faculty responding, 42,345 were actively teaching. From the latter a subsample was drawn including 2544 women and 2454 men.

Statistical significance of data is reported for individual tables.

Analysis: Three variables used as criteria: academic rank, tenure status, and base salary; and four sets of predictor variables: demographic data (including age, sex, race, family background, etc.), educational data, professional and work data, and characteristics of the employing institution. Setpwise multiple regression analysis was used to assess the relationship of the predictor variables (except sex) to each of the criteria (measures of reward), and the residual variance examined for the extent to which it was explained by the sex factor. Results are compared to findings of the 1968-9 study.

Findings and Conclusions: The most significant predictors of rank are: number of articles published, age, degree level (the doctorate), years of continuous service at the institution, and time spent in administration. These were the most important variables in 1968 also. But even after a sizable number of other variables are allowed for, much of the differential in rank is attributable to sex. Compared to the 1968-9 study, there is some indication of improvement in the rank attained by women. The predictors of rank applied to men will, when applied to women, show an average expected rank about a tenth of a step above the observed. This compares to a one-fifth step shown in the 1968 study, indicating gains in rank for women have been made over the last 5 years.

The effect of sex on tenure was not statistically significant (also found in 1968-9).

The predictors of salary differed substantially between women and men, as they had not in the 1968-69 survey. This suggests that the criteria used in awarding salaries may be in the process of change or may not be applied uniformly to men and women or throughout all academic sectors.

In 1971-73 the average salary of academic men exceeded that of women by more than $3,000--much of this attributable to variables other than sex, especially to rank. But even after control for rank and other variables important in predicting salary, the correlation between sex and salary remains significant although less than shown by the 1968-69 survey. These results suggest that sex differences in salary are partly due to differences in rate of promotions in rank, and that changes in salary differences since 1968-69 may have occurred primarily among new recruits in the lower ranks.

The prediction of salary is somewhat more complicated. In 1968 an increase of more than $1,000 would have been required to produce equity with men's salaries; in 1972 that amount would be about $600. But if rank is excluded as a predictor of salary, application of the men's regression equation to the women's data yields a salary differential of more than $1,000. Salary equity between men and women has been virtually achieved at the junior levels but not in the senior ranks. The salary of a woman full professor having the same qualifications as men at that rank would be predicted to be $1,680 higher than it actually is, compared to men with similar qualifications.

There are other indications of the persistance of sex discrimination: the percentage of women on college and university faculties increased only from 19.1 to 20.0 percent; in universities it increased from 14.8 to 16.5; but in two-year and four-year colleges it has declined. Nevertheless it is fair to say that substantial progress has been made, but it must be added that neither the spirit nor the objectives inherent in the antibias regulations and laws have yet been fully achieved.

19 References and notes appended.

Bernard, Jessie, Academic Woman, New American Library, New York, N. Y., 1964.

Descriptors: Academic Disciplines, Faculty, Sex Stereotypes

Type of Material: Social history, analysis of secondary sources, case studies; comvines small scale statistical studies with impressionistic observations and critiques.

Major Subject Matter: Women in academe both from an historical prospective and through scientific analysis.

Analysis: The author draws on autobiographical accounts of academic women, interviews, existing literature, and the results of the Pennsylvania State University Studies on academic performance, the Matched Scientists Study, and the Biological Sciences Communication Project Study of Laboratory Bioscientists to develop her discussion and to draw her conclusions. She includes her own original research.

From the wealth of data drawn on, the author shows that academic women are less assertive, relatively non-competitive, and have a lower status and are concentrated in low-prestige departments preferring teaching to research. Not necessarily less able, they lack the ferver of earlier women in academe.

The book opens virtually all of the issues that have since involved researchers: the relative productivity of women, their selection of "feminine" disciplines, their relatively greater immersion in teaching vs. research. It deals with the questions of the relative ability of women, of their creativity, the role of the woman's college, of the impact of marital status and motherhood on their performance and their aspirations. It discusses their lack of status and prestige. The book was written just at the beginning of the militant efforts of women in academe to attempt to equalize their position with men.

No bibliography; extensive notes and references are given.
References are given for each chapter.

Birnbaum, Judith A., "Life Patterns, Personality Style and Self-Esteem in Gifted, Family-Oriented and Career-Committed Women," Doctoral Dissertation, University of Michigan, Ann Arbor, Mich., 1971.

Descriptors: Career Choice, Women's Life Patterns

Type of material: Research study

Subject: Comparison of gifted women who are homemakers with those who pursue a career.

Population: Sample drawn from gifted university women graduates and women teachers in higher education.

Date of Research: Tests and questionnaires set (and follow-ups made) beginning Fall, 1969.

Method: Gifted women who were homemakers selected from women who graduated with distinction but without honors in a particular field from University of Michigan between 1945 and 1955. Alumnae records searched and only women who were married, with children, and not at present working or enrolled in a course of study were selected. Of 51 appropriate subjects located, 29 returned usable responses. For comparison, a group of married and one of single teachers at University of Michigan were selected. Both groups consisted of women with academic appointments who held the highest degree possible for their fields; 25 married and 27 single women professors responded. Total sample: 81.

All the women completed a detailed autobiographical questionnaire and responded to a TAT-like test.

Findings: Comparison of the three groups--bright women who are homemakers, those who are married and pursuing career, and those who are single and pursuing career.

Family background: The homemakers' parents were generally well educated, middle class; their mothers were not competitive people. The married professionals came from upper-middle class families and had the best educated parents, were close to their fathers, their achievements were rewarded; the family was not traditionally oriented. The single professionals were generally lower-middle or lower class families; the parents were not well educated.

Self-esteem: The homemakers felt the least self-esteem of the three groups. The married professionals had the highest self-esteem; feel their marriages produce the most satisfaction, but are pleased with their work as well. The single professionals have fairly high self-esteem; but are often lonely.

Personality: The homemakers are the most conventional, noncompetitive, rather dependent. The married professionals feel themselves to be most attractive; they are very energetic, unconventional. The single professionals are conventional, have greater need for recognized achievement.

Attitudes to children, homes: The homemakers take a sentimental tone about children and family. The married professionals have fewer children than the homemakers and have household help. They feel some guilt about neglecting children but manage to handle it without much discomfort.

Work: The married professionals are most enthusiastic; they appear to handle the double job of home and profession without great strain, but they feel great need for more time. The single professionals find their work fulfilling and feel that they are contributing to society by doing it.

The most difficult problems seem to be experienced by the middle-aged homemakers, not by the career women.

A bibliography of 57 items is appended.

Brooks, James Dargan, "The Assistant Principalship in Public Secondary Schools in Texas," Doctoral dissertation, Baylor University, Waco, Texas, 1970.

Descriptors: Administrative Personnel (Elementary and Secondary)

Type of material: Research study

Subject: Description of the status, duties, selection, and role of the assistant principal in Texas public schools.

Population: Assistant principals in Texas

Date of Research: Data pertain to the 1968-69 school year.

Method: A questionnaire sent to all the assistant principals (456) holding membership in the Texas Association of Secondary School Principals; 348 (76.3%) representing 314 schools, returned questionnaires. The 314 principals also sent brief questionnaire; 279 (88.8%) responded. Data reported by number and percentage distribution.

Findings: The mean age was 40, 95% were married, about 75% held the B.S. undergraduate degree with physical education the most common major. Nearly 90% held an advanced degree with educational administration the most common major; the graduate courses felt to be most useful were secondary school administration and adolescent psychology.

About two-thirds came to the assistant principalship from secondary school teaching and had spent 3.3 years (mean) in their present job. Salaries ranged from $6,800 to $15,000 with a mean of $10,500; 47% were employed in school districts that had salary schedules.

Of the group 338 (98%) were men and 6 (2%) were women; 98.5% of the men and 67% of the women were married.

Backgrounds: The most common undergraduate majors were: physical education-27%, social studies-19%, business education-10%, secondary education-9%, mathematics-8%, and social studies-5%.

Experience: Most had had teaching experience; 10% for 4 or fewer years, 38% for 5 to 9 years, 26% for 10 to 14 years, 26% for 15 years or longer. Most had been assistant principal for 3 years or less (61%); 23% had held the position for 4 to 6 years; 16% for 7 years or more. For 66% this was the first administrative job.

Career objectives: 54% expect to become secondary school principals; 23% aim toward the superintendentship; 18% would like to become college-level teachers.

Selection: Most feel that the secondary school principal and the superintendent have most influence in selecting assistant secondary school principals; only 9% ascribe much influence to the school board.

A bibliography of 46 items is appended.

Broverman, Inge K., et al., "Sex-Role Stereotypes: A Current Appraisal," *Journal of Social Issues*, Vol. 28, No. 2, 1972, pp. 59-78.

Descriptors: Sex Stereotypes

Type of material: A series of research studies by the authors and literature review.

Subject: Perception of sex stereotypes by men and women

Population: Samples drawn from small groups representing both sexes, married and single, and a wide-range of age and education.

Date: Not stated, research published 1968-72.

Method: First stage: 100 men and women undergraduates listed all characteristics in which they thought men differed from women; 122 items selected which occured at least twice. Second stage: scoring developed from study using 74 college men and 80 college women; 41 items with 75% or more agreement called "stereotyped;" (correlated *t* tests between the masculinity and femininity responses to each item showed significant difference, *p* .001); 48 additional items with agreement less than 75% but significant beyond the .05 level of confidence.

By time of writing, further studies with responses from 599 men and 838 women (married and unmarried, representing a wide-range in age--17-60 years--and education--elementary schooling to graduate degrees had been analysed). Respondents were divided into six groups (by sex and three age levels), and consensus among all six groups was high for 47 items, among four or five of the six groups for 74 items.

Findings: The authors' findings confirm those of other studies as follows: responses to stereotypes are remarkably consistent across sex, age, religious, marital status, and educational classifications. The "masculine" characteristics are more often positively valued (competency, rationality, assertiveness) than are the "feminine" (warmth, expressiveness). Both sexes include their respective sex stereotypes in their own self concepts. There is a relationship between individual sex role self-concept and some behaviors (e.g., actual and desired family size) and background factors (e.g., mother's employment history).

The feminine "warmth-expressiveness" stereotypes are positively valued, but the feminine aspect of the masculine "competency" stereotypes shows women as subjective, naive, and not competent. Women, when asked to choose items descriptive of themselves and of other women, do not show self-concepts as stereotyped as those that describe "other women."

Of 60 Catholic mothers with two or more children, those with self-concepts of higher competency had fewer children than those with self-concepts of lower competency. Children of working mothers compared with children of non-working mothers, saw less marked differences between the characteristics of men and women. This was particularly true for the daughters of working mothers.

A list of 45 references is appended.

Broverman, Inge K., et al., "Sex-Role Stereotypes and Clinical Judgments of Mental Health," Journal of Consulting and Clinical Psychology, Vol. 34, No. 1, February 1970, pp. 1-7.

Descriptors: Sex Stereotypes

Type of material: Research study

Subject: Influence of sex stereotypes on clinical judgment

Population: Sample drawn from clinically trained psychologists and social workers

Date: Not given

Method: A group of 79 clinicians (46 men, 33 women, of whom 31 men and 18 women had the Ph.D. or M.D. degree and who ranged in age from 23 to 55 years, and in experience from interns to experienced professionals) were given the authors' Stereotype Questionnaire of 122 bipolar items (e.g., very aggressive--not at all aggresive); 38 of the items were classed as stereotypic, i.e., there was 70% or more agreement as to which pole characterizes men or women.

The clinicians divided into three groups and each asked to describe by choosing one pole of the stereotypes listed a "mature, healthy, socially competent male" (17 men and 10 women clinicians), a similar woman (14 men and 12 women clinicians) and a similar adult, sex unspecified (15 men and 11 women). Only the stereotypic items were analysed.

The means and sigmas of the adult, masculinity and femininity agreement scores were calculated; agreement is significantly greater than would be expected by chance.

Findings: The clinicians generally chose the masculine stereotypes to describe the "healthy" man and the feminine stereotypes to describe the "healthy" woman. The masculine stereotypes are those that denote agressiveness and competence; the feminine stereotypes denote passivity and expressiveness. The masculine stereotypes are generally considered more socially desirable, so that the researchers find that the "feminine" description assigns less socially valued characteristics to women--those of submissiveness, dependency, excitability and lack of objectivity.

The characteristics chosen for the "healthy adult" strongly resembled those chosen for the "healthy male."

These findings hold for both men and women clinicians, and suggest that clinicians' ideas of health for men and women reflect society's sex stereotypes. In effect, there is a "double standard of health." Though there are biological sex differences, there is no reason to suppose them the basis for the stereotypes, and in any event, there is much overlap between the sexes in traits such as use of logic, objectivity, and the like. Women appear to be confronted with the choice of conforming to stereotypes or of having their femininity questioned.

A bibliography of 21 items is appended.

Bunting, Mary I., Graham, Patricia, and Wasserman, Elga R., "Academic Freedom and Incentive for Women," *Educational Record*, Vol. 51, No. 4, Fall 1970, pp. 386-391.

Descriptors: Career Development, Employment Opportunities

Type of material: Commentary by Mary I. Bunting, President of Radcliffe College; Patricia Graham, Director of the Education Program and associate professor of education and history at Barnard College, and Elga Wasserman, Special Assistant to the President on the Education of Women at Yale University.

Discussion: The article comments on steps being taken at some institutions of higher education to improve incentives and conditions for women. It notes that bias is often shown informally as when friends consult with friends in a few graduate departments when planning new appointments. Yet it is not difficult to include women on slates of candidates and calls for no great change in recruiting methods.

The elimination of anti-nepotism rules is a step forward, although some department chairmen may invoke them informally. Part-time teaching appointments also help married women continue academic careers. It is necessary, however, for professional advancement, since part-time teachers can fall hopelessly behind in the research commitments required for full-time faculty. Ways need to be found to help young faculty women who have home responsibilities up the academic ladder--even though they may have to climb at a slower pace.

Changes in undergraduate life and study patterns can help women to become more genuinely part of the academic community and to offset the assumptions of some professors that even the brightest women students are not likely to become important scholars.

There is need both to increase the proportion of women students and to improve the opportunities and facilities provided for them in order to create the best intellectual climate in the schools to the advantage of both sexes.

No bibliography is appended.

California State Department of Education, Bureau of School Apportionments and Reports, "Report on Women in Public Elementary and Secondary Education in California, 1973-74," (unpublished, undated), 3 pp.

Descriptors: Administrative Personnel (Elementary and Secondary), Elementary and Secondary School Teachers

Type of material: Research study

Subject: Status of women in California public schools

Population: Professional women (especially administrators) in California public schools.

Date: Data pertain to the school year 1973-74.

Method: Not described.

Findings: In 1973-74, 61% of the full-time teachers employed in the public elementary and secondary schools of California were women. These women teachers were not evenly distributed between the elementary and secondary schools; more than 75% of the elementary teachers were women, whereas less than 40% of the secondary school teachers were women. This proportion of men and women teachers has remained very stable over time. Bearing the above figures in mind, it is interesting to note that less than 1% of these women have superintendent or superintendent-principal positions. In 1973-74, women held 3% of the major central office positions, such as controllers, assistant and associate principals in California school districts. If positions such as nurse, librarian, counselor, teacher-counselor, psychologist, and psychometrist are excluded on the basis that these are primary service positions rather than administrative and supervisory positions, women served in 20% of the district administrative and supervisory positions generally considered to represent middle management.

A number of special schools and classes for mentally and physically handicapped and for delinquent children are operated by the county superintendent. Of the 2,400 teachers reported by county offices, 71% were women: 78% serving the elementary grades and 57% serving the secondary grades.

Again, excluding the primary service positions, women were serving in 29% of the administrative and supervisory positions generally considered to represent "middle management" in the offices of the county superintendents of schools.

No bibliography appended.

Carnegie Commission on Higher Education, The Carnegie Foundation for The Advancement of Teaching, Opportunities for Women in Higher Education, Their Current Participation, Prospects for the Future, and Recommendations for Action., McGraw Hill Book Company, New York, New York, September 1973.

Descriptors: Admission Policies, Child Care, Employment Opportunities, Faculty, Graduate Students, Higher Education, Salaries, Sex Roles

Type of Material: Report on research, analysis, literature review, and critique

Subject: Women's participation and prospects in higher education

Population: Women as students, faculty, and administrators

Method: Use of U.S. census data, American Council on Education Annual Surveys, National Education Association and Office of Education data; analysis of Carnegie Survey of Faculty and Student Opinion.

Date of Research: Carnegie Survey, 1969 (sample and method, see Bayer, College and University Faculty, 1970). Multilinear regression analyses run from those data for this study by Elizabeth Scott.

Discussion: The report covers the roles of educated women, their situation, and problems in entering higher education as undergraduate and graduate students, and as faculty and administrators. The legal background and some case histories of affirmative action are discussed as are campus facilities needed by women.

Survey and other research are used to describe the current situation with regard to women and to assess the presence, kind, and extent of discrimination. In each section, recommendations are made for dealing with major problems. Appendices present statistical tables, analyses of data, and selected excerpts from various affirmative action programs.

The major themes of the study are these: a substantial proportion of women's intellectual talent is being lost to society; women in higher education have been and often still are disadvantaged in acceptance into training and work, and in salaries; women's life-patterns and sex-role acceptance also put them at a disadvantage; the situation for women on faculties has deteriorated over recent decades. The report argues for the removal of "all improper barriers" and recommends elementary and secondary school programs and counselors should encourage women to aspire to high career goals. There should be no discrimination in admissions to graduate or professional schools on the basis of sex, nor because undergraduate education occurred some years earlier. Child care services should be available for both students and faculty at colleges and universities. Faculty women should receive equal treatment in hiring, salary, tenure, and fringe benefits.

A bibliography of 176 items is appended.

Carnegie Council on Policy Studies in Higher Education, Making Affirmative Action Work in Higher Education, prepublication copy, Berkeley, Calif., released August 11, 1975. (In publication)

Descriptors: Affirmative Action, Discriminatory Practices, Faculty, Post-secondary Education

Purpose of the Study: A special study was undertaken to determine the current status and policies of affirmative action in the post-secondary institutions of the United States.

Design of the Study: Questionnaires were distributed in the Spring of 1975, to 207 Universities, 4-year and 2-year colleges based on the ACE study selection and selected documents were requested. The sample was biased toward large campuses at every level, and among levels biased toward the universities. The sample included 10% of all institutions, 62% of research universities (as defined); 132 institutions responded. The highest response rate was among the universities (64%). The data accumulated was not additive since it did not always refer to the same year, and the number of respondents were too small to justify analyzing the data in a statistical form.

The objectives were not primarily statistical but rather to develop information on the characteristics of affirmative action policies.

Analysis: On the basis of this study, prior studies carried out by Carnegie, and an analysis of the current effort of the federal goverment and state and local equal employment agencies having jurisdiction over post-secondary institutions (both public and private), Carnegie attempted to evaluate the success of the current effort to eliminate discriminatory practices against women and minority academic personnel in the post-secondary institutions.

Findings and Recommendations: 1.Colleges and universities are increasingly assuming and should continue to assume the initiative in securing equality of opportunity in higher education.
2. The supply aspects of the equality of opportunity effort are now generally more important than the demand aspects.
3. A better distribution of women and minorities among institutions and among fields of specialization and ranks is badly needed, even though there appears to be no overall demand gap.
4. Efforts at "fine-tuning" affirmative action goals by the federal government have been counterproductive, reducing the cumbers of women and minorities set forth in the goals.
5. Goals, broadly defined as to academic units included and groups covered, and timetables should be continued during the current transition period as part of the federal affirmative action program in order to assure that departments which have not hired women and minorities in the past should not be able to elude their responsibility in the future. Promotion and appointment to the tenured ranks have been neglected and the major emphasis placed on lower level faculty (instructors and assistant professors) among the highest level (research) universities.
6. The federal affirmative action program is confused, and chaotic, and should be brought quickly into closer conformance with good governmental practices. Compliance should rest on persuasion in the vast majority of cases, and on the use of sanctions for only a small minority.

A bibliography of 99 references is included.

Carroll, Constance M., "Three's Crowd: The Dilemma of the Black Women in Higher Education," Academic Women on the Move, eds. Rossi, A., and Calderwood, A., Russell Sage Foundation, New York, N.Y., 1973, pp. 173-186.

Descriptors: Black Women, Employment Opportunities, Postsecondary Education

Type of material: Informal literature review and observation of her own institution by the Assistant Dean of the College of Liberal Arts, University of Maine at Portland-Gorham; Co-Chairperson of the Higher Education Commission of the National Council of Negro Women.

There is no more isolated subgroup in academe than Black women. A study done at the University of Pittsburgh determined that 8 percent of the professional staff are Black, and a slightly larger proportion of the white staff members than of the minority staff members are women. The disproportion between the sexes is far greater than the racial disproportion. This situation is not unique to institutions of higher learning. There is also a disproportionately greater number of Black men than Black women in Black educational institutions and agencies. Where Black women are found, they tend to be lower salaried. When translated into actual opportunities for employment and benefits, the civil rights movement really means rights for Black men. Black women are faced with all men and white women as competitors, for white women are far more numerous in faculty and administrative positions than minority men or women. It is suggested that women's groups and Black groups within academic institutions should form an alliance to end divisive tactics. A bridge between the two groups is needed for the benefit of both.

A list of 17 references is appended.

Cartter, Allan M. , and Ruhter, Wayne E., The Disappearance of Sex Discrimination in First Job Placement of New Ph.D.'s, Research Report 75-1, Higher Education Research Institute, Los Angeles, California, 27 pages.

Descriptors: Admission Policies, Doctorates, Employment Opportunities, Labor Market
Type of material: Research Report

Subject: First job placement of new Ph.D.'s, men and women

Population: New doctorates listed in the National Research Council's (NRC) doctorate record files

Date: Records consulted for 1967 through 1973

Method: The NRC files furnished first job placement information as well as listing of new doctorates for the years 1967-1973, except 1969-70. Using this information plus a rating of higher education institutions set up by Cartter and based in part on the Roose-Andersen rating devised for the American Council on Education), analysis was made of the comparative positions of men and women both in attaining the doctorate and the type of first job placement thereafter.

Findings: In 1973, women received 18% of all doctorates compared to 12% in 1967. Since 1966, the growth rate of doctorates awarded has been higher for women than for men. The difference between the ratios of men and women graduate students who continue on to completion of a Ph.D. has narrowed. The proportion of women doctorate first-hires by all educational institutions has grown from 14.7% in 1967 to 20.8% in 1973 and among universities from 10.7% to 20.6%. At the same time the first-hires of women have decreased among the new doctorate teachers hired by two-year colleges, public schools, and the less prestigious four-year colleges. Overall, there has been a decline in employment for both men and women, reflecting general academic market conditions.

Between 1967 and 1973, the university sector declined as first employer of men doctorate teachers, from 62.2% to 41.5%; for women Ph.D.'s, the decline ranged from 43.5% to 41.1%.

In a tight labor market, the percentage of men doctorates who had signed contracts at the time they completed their degree requirements fell by 8 percent while that of women fell by 10 percent. Larger percentages of men had already signed contracts, and larger percentages of women were either still negotiating or had not yet begun negotiations. Proportionally, slightly more women than men graduating from every class took their first post-degree placement at educational institutions equal or superior in quality to their doctoral-granting institution. A smaller proportion of women than men entered research and development and post-doctoral studies than men. They note, however, that subsequent career advancement within the group may be hampered by sex discrimination.

A bibliography of 13 items is appended.

Centra, John A., *Women, Men, and the Doctorate*, Graduate Record Examination Board, Educational Testing Service, Princeton, N.J., September 1974.

Descriptors: Doctorates, Faculty, Postsecondary Education, Women's Working Patterns, Women's Life Patterns

Type of Material: Research Study

Major group: Men and Women Ph.D. recipients in humanities, social sciences, biological sciences, physical sciences, and education; 3 groups attaining degrees in 1950, 1960, and 1968.

Date: questionnaires sent March, 1973.

Method: Names of doctoral recipients from 1950, 1960, and 1968 were randomly selected from *American Doctoral Dissertations*, a listing of doctoral recipients by year of degree, field of study, and institution. The samples of Men and Women doctorates were matched for year, field, and institution. Women doctorates of 1951 were included in the 1950 group because of its small number. A total of 6,710 names comprised the original sample; 1,336 females and 1,242 males from 1950, 935 females and 861 males from 1960, and 1,202 females and 1,134 males from 1968. Addresses were available from alumni offices for 5331 (79%) of the original sample. Of 4,495 questionnaires presumably delivered, 3,658 (or 81.4%) were returned. Of 50 randomly selected female doctorates from the 495 nonrespondent group, 19 returned completed postcard questionnaires. Nine were reached for a telephone interview.

Analysis: Two-by-two chi-square tests of significance are applied to male and female percentage responses. .05 and .01 levels of significance were computed and indicated. Mean is computed for frequency and percentage tabulations.

Data Available: Data reported by sex and graduation data for financial support, interactions with graduate faculty, marital and family status, employment patterns, activities in academe, salary, and trends in attitudes.

Findings: Women were less likely to marry and have children than male counterparts; divorce rates were higher for women; women were more likely to receive financial aid and less likely to receive teaching assistantships than men. The 57% of unemployed women had marital and family responsibilities; 11% of the women and 8% of the men preferred part-time work to their current full-time status. Two-thirds of the men and 70% of the women Ph.D.'s were teaching in post-secondary institutions, where women were more likely to teach(57% vs. 46%) and men to hold administrative positions, (26% vs 15%).

Comparison of men to women: 26% to 19% leaned toward research as primary work interest. Income between men and women differs considerably in all categories. Men in the 1968 group were less involved and interested in women's rights than the earlier groups, while women in the 1968 were most interested and involved. The women most active in women's rights tended also to be the most dissatisfied group.

A bibliography of 45 items is appended.

Cibik, Rosemarie S., "The Personal, Social, and Professional Backgrounds and the Duties and Responsibiliites of Women High School Principals in the United States," Doctoral dissertation, University of Pittsburgh, Pittsburgh, Pa., 1957.

Descriptors: Career Development, Elementary and Secondary School Principals, Salaries

Type of Material: Research study

Subject: Description of women high school principals

Population: All women high school principals in the United States

Date of Research: Questionnaires sent and follow-ups carried out from May through August, 1955; information pertains to the 1954-55 school year.

Method: All women principals in three-year, four-year and six-year high schools in the 48 states (exclusive of District of Columbia and outlying possessions), holding the position in 1954-55 were located through state directories and in Patterson's American Education, 1954. Only 350 women principals were discovered and all were sent questionnaires; 216 (61.7%) responded. They represented 38 states. The report is organized by size of school enrollment. Most of the women were in schools with enrollment under 500. (Findings are compared to nation-wide study of all principals done in 1947.)

Findings: Demographic characteristics: Median age is 51.1 years (compared to 43.3 years in the 1947 study of all principals): 66% fall in the 45-55 age group and 73% in the 45-65 age group. Nearly half (49%) are single; compared to 7% of the principals in the 1947 study. Of those who are married, 65% have one or more children; the median number of children is one. Seventy-one percent are working in the state of their birth.

Professional background: Forty-seven percent have a master's degree and 3% have a doctorate. The most frequently studied education courses are secondary school administration, educational psychology, secondary school supervision, and secondary school guidance. They are most likely to name secondary school administration as their most useful course.

All had taught; the most frequently taught subjects were English, mathematics, science and foreign language. For 57% their present job is the only administrative position they have held. Reasons given for taking the position of principal were (in order) for the sake of promotion (44%), asked to take the position (25%), liked administration (14%), and for the higher salary (9%).

Salary: Salaries tended to be larger in larger schools, but the women's salaries tended to lag behind those of men principals.

Compared with principals in the 1947 nationwide study, the women principals are generally older, more experienced, have held present job longer, but have fewer graduate credits in education. For advancement, women principals (and women who aspire to the principalship) should obtain the masters degree, should seek administrative experience, and should play a more active part in the community.

A bibliography of 47 items is appended.

City University of New York, Chancellor's Advisory Committee on the Status of Women, A Report to the Chancellor, City University of New York, New York, N.Y., December 1972, 231 pages.

Descriptors: Academic rank, Administrative Personnel (Postsecondary), Faculty, Postsecondary Education, Salaries

Type of material: Research study

Population: Women administrators, faculty, and students at CUNY

Date: Data collected during 1972

Method: Hearings held February and April 1972 to gather information on university operations and structures. Decided not to use survey techniques as time was limited. Because university-wide data banks lacked sex information and data kept by individual colleges lacked uniformity, data were gathered primarily from the University Affirmative Action Office, the Office of Data Collection and Evaluation, and the Faculty Data Bank.

Studies done for the period 1961-62 to 1971-72 on the constitution of the Board of Higher Education, profiles of middle and upper administrators, of department chairpersons, and of Committees on Personnel and Budget; also a study of 6-terms (18 years) of departmental committees of Personnel and Budget. Descriptive (non-statistical) studies of such matters as maternity leaves, fringe benefits, grant-awarding procedures, grievance procedures, and financial aid.

A comparative analysis of men and women faculty was undertaken by developing a Fall 1971 employment profile through a ten discipline sample of the 19 CUNY educational units; also tenure bearing titles at the three oldest senior colleges analysed by disciplines, and a hiring census was made for all colleges for the academic year 1971-72.

Findings: In general women composed 22% of the administrative staff, 32% of faculty, and over 95% of secretarial and clerical staff. Women have not had an equal share in recent expansion of the CUNY system: e.g., from 1965 to 1971, the number of associate deanships increased from 4 to 22, but the percentage of women associate deans dropped from 50% to 18%. Support jobs are segregated by sex; of 82 classifications, 30 are all male and 9 are all female and the latter are lower paying.

There has never been a woman chancellor or vice chancellor, and there has been only one woman university dean. Of 49 persons who have served as CUNY college presidents since 1939, only 5 have been women; including the Presidents of a Woman's college. During 1971-72 only 8% of college deans were women; middle-level women administrators tended to reflect sex-stereotyped fields (e.g., nursing) or to lack policy-making influence. Only 17% of top ranking Higher Education Officers were women.

Women comprise 32% of faculty but 59% hold non-tenure bearing titles. Men are more likely to be hired at upper ranks; in 1971-72 43 men and no women full professors were hired. Overall, faculty women earn less than men at the same rank, and on the average take longer than men to achieve promotion.

Women are scantily represented in faculty administrative activities: they averaged 15% of departmental chairpersons at senior and 18% at junior colleges. They are never more than a quarter of those elected to departmental Committees on Personnel and Budget.

Nearly three-fourths of women students are enrolled in "women's fields" and are not gaining entrance into male-identified fields. Services for women students (counseling, health, child care) are non-existent or severely limited.

A Bibliography of 149 items is appended.

Clement, Jacqueline P., Sex Bias in School Leadership, Integrated Education Associates, Evanston, Ill., 1975, 65 pages.

Descriptors: Administrative Personnel (Elementary and Secondary), Discriminatory Practices, Elementary and Secondary School Teachers

Type of Material: Literature review

Subject: Sex discrimination in school leadership positions

Date: Literature published between 1964 and 1973; 85% from 1970 onward.

Findings: Schools are shaped by beliefs about "what should be" which are generally conservative. Efforts to bring about changes are likely to be long and painful.

Statistics on school administrators broken down by sex are rare; those that are available show that only miniscule numbers of women hold these positions. In 1972 only 2 of 50 chief state school officers and less than one percent of local school superintendents were women. Though women's childbearing function, and the fact that fewer women than men obtain advanced degrees in educational administration are related to women's slight role in administration, neither explains the great discrepancy between men and women in administrative posts.

There is almost no information about the aspirations of women: we do not know how many women have wanted or tried to obtain administrative positions and failed.

The laws against discrimination on the basis of sex are discussed and some increases in the placement of women are noted. But the author does not feel that such changes can be taken as guarantees of widespread change. Women do not dominate any aspect of policy-making in education at any level. The work that is needed will have to be done through the women's own efforts. "No one will monitor the marketplace for women except women themselves."

A bibliography of 62 items is appended.

Clemente, Frank, "Early Career Determinants of Research Productivity," *American Journal of Sociology*, Vol. 79, No. 2, September 1973, pp. 409-419.

Descriptors: Post Secondary Education, Productivity

Type of Material: Research study

Subject: Productivity of Ph.D.'s in sociology

Population: All members of American Sociological Association (ASA) receiving the Ph.D. from 1950 to 1966

Date: Search of directories of 1967 and 1970

Method: Total of 2,467 persons receiving the Ph.D. in stated time period and listed in the American Sociological Association directories. Of these, relevant data were obtained for 2,205. A weighted index of books and articles developed by Glenn and Villemez (the Glenn-Villemez Comprehensive Index) used to measure publication records of all members of the sample; approximately 6,800 publications were enumerated.

Major variables: publications, sex, age at receipt of Ph.D., number of years between bachelor's and Ph.D., age at first publication, whether or not subject had published before receipt of Ph.D.

Zero-order correlations used as index of gross relationship between the variables. Standardized partial regression coefficients calculated to test hypotheses and to provide assessment of the predictive utility of each independent variable. Professional age (time elapsed since attaining Ph.D.) entered into the regression as control.

Findings: Of the sample, 24% of the total (men and women) had published before receiving the doctorate; 306 (14%) were women.

Though men had published twice as many articles and books as women, when the standardized partial regression coefficients are taken into account, in no instance did sex exert an important influence upon publication. The slight difference may even be less important, since it is suggested that a woman may have published under two different names and therefore all publications may not have been identified. Length of time required to attain the Ph.D. also received extremely weak support as a variable and can be rejected. Only age at time of first publication, and the fact of publication before Ph.D. emerged as important predictors.

Additional variables that should be investigated: the influence of postdoctoral affiliation and the publication rates for other fields of specialization; an effort should be made to assess quality as well as quantity of publication.

A bibliography of 43 items is appended.

Committee on Women in Psychology, "Survey of Departments of Psychology--1972 and 1973," American Psychological Association, Washington, D.C., 1974. (This report drawn upon by Kenneth B. Little, Executive Officer, American Psychological Association, for his statement before the Special Subcommittee on Education of the Committee on Education and Labor, House of Representatives, Hearings, September 20, 1974.)

Descriptors: Hiring and Promotion Practices, Postsecondary Education, Salaries

Type of material: Statistical survey

Subject matter: Status of women in Departments of Psychology

Population: Sample drawn from American Psychological Association accredited departments and the largest M.A. and Ph.D. granting departments of psychology.

Date: Data pertain to the academic years 1971-72 and 1972-73.

Method: Of 116 departments (as described above) surveyed, 83% responded to the 1972 survey and 86% to the 1973 survey which used the same sample and, with minor changes, same questionnaire; response to both surveys was 83%.

Findings: From 1972 to 1973, the percentage of women instructors increased from 36% to 43% but the percentage of women professors decreased from 8% to 7%. There had been increases in doctoral program enrollment for both women and minorities. There has been a small increase in women at the lowest ranks on psychology faculties, but the Committee has received reports that many of these appointments are one-year appointments which are not being renewed. Input at the lowest level "creates a deceptive picture of progress..."

The salary differential between women and men appears to have increased. In 1972 men full professors received $1,720 more than their women colleagues and in 1973 the differential was $2,357.

No bibliography is appended.

Cook County, Illinois, Educational Service Region, *Research Report, Comparative Data Regarding Male and Female Administrators in the Suburban Schools of Cook County*, Chicago, Ill., 1972, 23 pages.

Descriptors: Administrative Personnel (Elementary and Secondary), Salaries

Type of material: Research study

Subject: Employment status and rewards of school administrators

Population: Public school administrators in suburban Cook County, Illinois

Date: Data collected from October 1972 records

Method: Codification from the Teacher Service Records where position, experience, age, salary, and sex were given. The data are reported by school district, administrator category, and sex. Factors such as age, experience and salary were reported as means; numerical distributions are given.

Findings: The study was designed to compile data relating to the experiences, age and salary of men and women public school administrators in suburban Cook County.

At the elementary school district level, women represented 7 percent of the central office administrators, 18 percent of the building administrators, and 62 percent of the program administrators. Overall, the women administrators tended to be older, more experienced and were earning markedly less than their men counterparts.

At the high school district level, women represented 2 percent of the central office administration, 11 percent of the building administrators, and 19 percent of the program administrators. At this level, women administrators were on the average three years younger, had one year less experience, and earned a median salary $4,700 below men in the same work. For the system overall, women administrators tended to be two years older, to have one year more experience, and to earn $3,400 less than men.

Various rationalizations are presented to explain the salary differentials and the low percentage of women in such administrative jobs. The study offers little analysis, nor any recommendations designed to remedy the situation.

No bibliography is appended.

Coursen, David, Women and Minorities in Administration, School Leadership Digest, National Association of Elementary School Principals, Arlington, Va., 1975. 25 pp.

Descriptors: Administrative Personnel (Elementary and Secondary), Attitude of Administrators, Elementary and Secondary Education

Type of Material: Literature survey

Subject: Status of women and Blacks in school administration

Date: Literature published between 1959 and 1974, the major part since 1970

Discussion: In 1928, 55% of all school principals were women; by 1970-71 only 21% of elementary and 3% of secondary school principals were women; less than 1% of superintendents were women. The stereotypes of women's roles, abilities, and characteristics all work against their being chosen for administrative positions, yet virtually all studies comparing men and women principals show the inaccuracy of these stereotypes. Women principals have been found to be superior to men in fostering student and teacher morale, program development, democratic leadership, thoroughness; they are generally more experienced and tend to show more empathy with women teachers. Other studies show that men who have actual experience with women principals often prefer them.

Administrators are inclined to expect women to be inadequate, and to perform best in subordinate roles; similar expectations are not customarily held toward men. Thus, women are not offered duties and challenges that, for men, lead to promotion.

Consolidated schools have reduced the number of positions and closed the smaller schools many of which were headed by women. The trend to "defeminize" public education has also displaced women, replacing them with upwardly mobile men who perceive the principalship as an avenue of promotion rather than a career commitment.

Recommendations: Hiring women and minority administrators should be a priority. In conjunction, certain specific steps should be taken to establish a clearinghouse for qualified women and minority members to actively recruit women and minorities; to encourage schools of education to train more such persons for administrative positions; to develop internship programs for potential women and minority administrators.

A bibliography of 28 items is appended.

Creager, John A., American Council on Education, Office of Research, "The American Graduate Student: A Normative Description," ACE Research Reports, Vol. 6, No. 5, Oct. 1971

Descriptors: Graduate students, Postsecondary Institutions

Type of Material: Statistical Report

Subject: Graduate students in U.S., their backgrounds, current status and experience, and expectations for the future.

Population: Sample drawn from graduate students in 153 out of 803 colleges and universities with graduate programs in academic and technical areas.

Date: Data gathered 1969

Method: Subpopulation of 803 institutions located in the 50 states and D.C. and which participated in the ACE Cooperative Institutional Research Program were defined as a relevent universe based on their graduate programs in academic and technical areas that lead to master's and doctoral degrees. Rosters of graduate students enrolled were provided by these institutions of which 158 were selected for sampling. A 3 out of 16 random sample of graduate students was then selected and a 12-page questionnaire sent out. The data are based on 33,119 graduate students from 153 institutions (51,429 questionnairs sent, 33,511 or 66% returned).

Data available: Characteristics of graduate students: degrees held and type of institution granting, degree expected, field of study, and attitudes toward educational, social, and political issues; also data on their age, sex, race, marital status, income and its source, and background. The greater part of the data are presented by sex and degree expected.

No bibliography appended.

Dallas Independent School District, "A Study of Sex Discrimination in the Dallas Independent School District," Dallas Women's Coalition, Dallas, Texas, June 13, 1973.

Descriptors: Discriminatory Practices, Administrative Personnel (Elementary and Secondary), Elementary and Secondary School Teachers, Sex Stereotypes

Type of Material: Research report

Subject: Sex discrimination in Dallas public schools

Population: School personnel and students

Date: Data for the 1971-2 and 1972-3 school years

Method: Four areas investigated by local membership of four women's groups: counseling and curriculum by American Association of University women; employment by the Women's Equity Action League; and sports and physical education by Women for Change. Methods are not detailed but included interviews with staff, scrutiny of records, and examination of textbooks.

Findings: Counselors are not aware of changing sex roles, do not advise girls in such a way as to help them break out of stereotyped roles and job preparation; counselors have too many students assigned to know them and their individual needs. Textbooks tend to ignore the role of women, to mention women mainly in relationship to men, and to use stereotyped language and situations.

A study of employment in the schools showed women concentrated in the lowest paying jobs; suggested that job promotion for women is limited; and showed men and women predominating in sex-typed positions. Maternity leave policies and insurance benefits have discriminatory aspects. Sports and physical education are largely sex-segregated, with much less variety and money, and fewer facilities devoted to activities for girls.

Recommendations include: Enlarge the counseling staff, train staff in non-sexist counseling and emphasize aggressive counseling for girls; eliminate discriminatory tests. Include a woman active in the women's rights movement on the textbook committee; collect information on sexism in textbooks and seek non-sexist material. Institute an affirmative action plan for employment aimed at achieving full participation of women and men in all job categories; re-evaluate job classifications and salaries to prevent inequities; provide an objective, clearly defined line of advancement. Sex and marital status should be eliminated as factors in hiring, promotion, or employment benefits. Physical education classes and sports activities should be desegregated.

No bibliography is appended.

Darland, M.G., and Others, Application of Multivariate Regression to Studies of Salary Differences Between Men and Women Faculty, Berkeley, Calif., University of California, 1974, 13 pages

Descriptors: Faculty, Salaries, Postsecondary Institutions

Type of material: Research study

Subject: Salary differences between men and women faculty

Population: Faculty members in universities, four-year and two-year colleges

Date: Data gathered 1969

Method: A comprehensive questionnaire was returned by 60,028 faculty members in 78 universities, 168 four-year colleges, and 57 two-year colleges. As part of the 1969 Carnegie Commission National Survey of Higher Education of the American Council on Education.

Analyses are based on all women sampled and 25% random sample of men. Regression analyses on more than 25 predictor variables were undertaken, establishing separate equations for men and women.

Astin and Bayer used a linear regression equation with 32 predictor variables to compare the average salary of men and women having the same rank, background and achievements. The present study extended the investigation for different types of institutions and different fields. Also included are higher order interaction terms and an indicator of full-time versus part-time employment.

Salary intervals of varying width were used (averaging $3,000). Salary intervals were converted to dollars before estimates were computed or comparisons made.

Major variables: Estimated faculty salary by more than 25 predictors by field and type of institution (research, doctoral-granting and comprehensive universities and colleges, liberal arts, and 2-year colleges) and by sex.

Findings: It was found that when the estimated salary of a man and women of the same abilities and performance were compared, the woman tends to be underpaid by about $1,500 annually. Estimates were made to determine how much of the observed salary differential can be explained by relatively objective factors such as highest degree held, differences in performance and in attributes, and how much of the observed salary differential is the result of sex discrimination.

The amount of underpayment is a more pronounced in the research universities, in the biological of physical sciences, and at the higher academic levels. Women who are employed in academe have a different age distribution than men. Length of time employed, administrative activity, and mobility increase men's salaries twice as much as they do women's. Time devoted to research and having published books before reaching a mature age are factors more rewarding to men than to women. Having children tends to decrease the salary of women. Evidence of the apparent discrimination against women faculty in salary is strong and persists for every race. The salary differential due to sex is much larger than that due to race. The differences found are entirely too large to be due to chance and clearly reflect discrimination.

The American Council on Education (ACE) repeated the faculty survey in 1972-73. The data are not yet available in detail but extensive summary information has already been published. It is evident there has been no appreciable change in the difference of treatment between the sexes. There is a slight tendency for Black men to be underpaid compared to white men, and for Black women to be overpaid when compared with all women. On the other hand, the differences due to sex persist and are strong for all races. Results for Blacks and Asians are about the same as for whites. Conversely, women tend to be underpaid in almost every combination of field and type, no matter what race they may be.

Comparisons of these studies were made with the results of the extensive study by Johnson and Stafford as reported by Committee Z of the American Association of University Professors. That study agrees with the results in this report.

The argument that the difference in salary is attributable to the childbearing years of women does not hold up; highly educated women do not withdraw from the labor force any more than men do. The latest ACE survey found that nearly one-fourth of all faculty had interrupted their professional careers for more than one year, and that, moreover, a greater percentage of men than women had done so.

9 references.

Darrow, Susan T., and Stokes, Sybil L., "Part-time Professional/Administrative Employment at the University of Michigan," Center for Continuing Education of Women, University of Michigan, mimeographed, January 1973.

Descriptors: Employment Opportunities, Part-time Work

Type of material: Research study

Subject: Part-time employment opportunities at a major university

Population: Part-time administrative and professional personnel

Date: Data based on October 1971 payroll period

Method: University payroll data on job classification, work unit, fraction of appointment, salary, and sex was examined for three groups of employees: teaching faculty, academic employees without teaching appointments, and non-academic professional/administrative staff. The data are reported in numerical and percentage distributions.

Findings: Sixteen percent of the University of Michigan teaching faculty held part-time appointments (includes Ann Arbor, Flint, and Dearborn campuses). Over 60% are part of the teaching faculty at Ann Arbor, fewer than 10% are located at Flint and Dearborn, 25% are clinical faculty. More than half (56%) of the part-time teaching appointments are in medicine and dentistry. Of the part-time teaching faculty, 22% hold rank as full professor, 12% as associate professor, 25% as assistant professor.

Women comprise about 18% of the regular part-time faculty at the Ann Arbor campus, about 17% of the clinical faculty, none of the visiting or adjunct faculty, 40% to 50% of the part-time faculty at Flint and Dearborn. By rank, 7% of part-time women faculty are classified as full or associate professors, 14% as assistant professors, 42% as lecturers and 37% as instructors. By rank, of part-time men faculty, 41% are full or associate professors, 28% are assistant professors, and 31% are either lecturers or instructors. Salary (presented as average, full-time equivalent) for part-time men full professors was $32,645 and for women at that rank, $25,378. At instructor and lecturer levels the full-time equivalent salary for men ranged from about $16,700 to $17,700 and for women from $12,680 to $12,723. Nonteaching academic part-time appointments included research assistants, research associates, and "others." The distributions between the sexes were similar though more men were associates and more women assistants (30% to 26% and 16% to 24%).

Of professional/administrative non-academic personnel, 75% are employed at the Medical Center, 41% are nurses, 88% are women; 80% earn less than the full-time equivalent salary of $10,800 per year.

In general, women in part-time positions are employed at lower ranks and salaries than are men in part-time positions, and in fields (e.g., nursing but not medicine) that pay less. Most of women's part-time positions are off the career ladder.

No bibliography is appended.

Dinerman, Bertrice, Sex Discrimination is Academia, Journal of Higher Education, Vol. 42 No. 4, April 1971, pp. 253-264

Descriptors: Discriminatory Practices, Postsecondary Education

Type of Material: Commentary plus brief literature review by a researcher-writer who has acted as research director and consultant for a variety of university-based research programs.

The proportion of women in college and university teaching has declined between 1930 and 1964. They are especially lacking in the "big ten" universities and in upper-level positions. When they are hired they tend to be given large classes and introductory courses for which they receive lower salaries. Anti-nepotism rulings discriminate against qualified women married to faculty members and provide a source of cheap teaching labor. Promotion for women is slow, status low, and expectation of serious career committment rare. Women are less likely to be invited to take part as editors and writers in scholarly research and publication. If women were included in the informal information system, sex differences in productivity would probably be reduced to insignificance.

Promotions are highly subjective as they depend on judgmental decisions, and favoritism, therefore, becomes rampant. To increase the prestige of areas previously considered women's provinces, men are being appointed as administrators in the public schools as well as in higher education, thusadding to existing problems.

The anticipated surplus of Ph.d.'s will only aggravate the situation further, creating a buyer's market in which competition for existing positions will be greatly intensified.

Seven studies are referred to.

Dunkle, Margaret, and Simmons, Adele, "Anti-Nepotism Policies and Practices," (mimeographed), U.S. Department of Health, Education, and Welfare, Educational Resources Information Center, Washington, D.C., January 1972, 14 pages.

Descriptors: Discriminatory Practices, Postsecondary Education

Type of Material: Literature review

Subject: Antinepotism regulations

Date: Literature published from 1964 to 1972, most of it from 1969 onward.

Although anti-nepotism policies were originally passed to protect colleges and universities from the political pressures of having to hire imcompetent people with influential connections and to prevent the formation of father/son alliances. Such policies are now used to rationalize not hiring or promoting women married to faculty members. There can be formal rules or "gentleman's agreements." In some institutions they are university-wide; in others they are found only in some departments. The number of academics married to other academics is clearly increasing, and the resulting complications invariably penalize the female half of the academic team. Yet, studies show that husband/wife faculty teams have a beneficial effect on students. Because of these findings, the Board of the American Association of University Professors adopted a policy encouraging the total eliminiation of all anti-nepotism policies and practices in June 1971.

Anti-nepotism policies have limited the career aspirations of many married women academics, especially if they work in the same field as their husbands. These policies make it difficult for women to obtain fellowships and research assistantships and restrict the mobility, and hence the career plans, of the academic couple. Women with advanced degrees who are married to men on the faculty suffer most from anti-nepotism practices; they must often accept temporary or part-time appointments outside their field of interest at other colleges, or stop working altogether. Other women have even worked as unpaid research or editorial assistants to their husbands. Anti-nepotism regulations have a further disadvantage in that they are decreasing the pool of eligible women academics from which qualified women can be drawn.

The Department of Health, Education, and Welfare, has taken the position that anti-nepotism policies are, on their face, discriminatory. The University of Michigan was required to compensate, retroactively, any person who suffered from such discriminatory practices. The authors conclude that if the most qualified applicant is a spouse of a university employee, even within the same academic department, this person should be employed. However, no faculty member should participate in the decision of any matter which directly affects the appointment, tenure, promotion, salary, or other status or interest of a close relative.

A list of 12 references is given.

Duquesne University, University Ad Hoc Committee on the Status of Women, Report on the Status of Women at Duquesne University, Duquesne University Pittsburgh, Pa., 1972, 90 pages.

Descriptors: Academic Rank, Administrative Personnel (Postsecondary), Postsecondary Faculty, Salaries

Type of Material: Research study

Subject: Status of women at Duquesne University

Population: Samples drawn from women faculty, staff, administrators, alumnae, and graduate and undergraduate students.

Date: Questionnaires sent January 1972.

Method: Questionnaires sent to 100% of women faculty, staff, and administrators and to 15% (random selection by computer) of alumnae, graduate and undergraduate students. Returns: faculty--76%, staff--46%, administrators--42%, alumnae--21%, graduate students--37% and undergraduate students--86%. Also, written requests for data to heads of sections (e.g., deans); interviews with administrative officers (e.g., Directors of financial aid, admissions, personnel); a student coffee hour designed to elicit attitudes that might not be expressed on the questionnaire; and testimony volunteered by individuals. Data are reported by numerical and percentage distribution.

Findings: Women constitute 27 percent of the faculty; their representation at administrative and decision-making levels does not correspond even minimally to their numbers on the faculty. Not one of the 15 departments chairmanships in the College of Arts and Science was occupied by a woman; no woman held a position higher than that of dean. Only two women sat ex officio on the Board of Trustees. Where they appear at all, women are disproportionately minorities on major committees, frequently appearing only as student representatives. Women outnumber men 18-16 at the instructor level, while men outnumber woman 68-4 at the professorial level. In one school a $5,900 difference in salary existed between a woman and a man of the same rank. Another woman faculty member had served longer than any one else in her rank and received the lowest of all salaries. Differences in publication, grants, longevity, etc., could not explain individual differences in salary.

A very large number of the women faculty respondents believed that there was no discrimination, that women received the same salaries as men and that women are hired at a rank commensurate with their training and experience. Most felt that colleagues and supervisors were well meaning but misinformed about women, and the remainder were divided between those who felt that men considered them mentally inferior to men and those who felt that the men favored hiring and retaining women only in subordinated positions. Fifty-four percent did not believe that they could become the heads of departments; 40 percent felt that their male colleagues were opposed to granting women equal status; 43 percent felt that male colleagues were insensitive to the needs of women faculty. Most complaints centered around the fact that women received less rewarding and more demanding extra-curricular assignments.

The report recommends establishment of a fund to implement the redress of salary and provision of comparable staff support for administrative positions held by men and women. It further recommends assurance of representation of women on all committees in proportion to their number among faculty, staff, and students; advancement of qualified women to administrative and policy-making positions; equalization of retirement benefits; revision of fringe benefits for women to include maternity leaves and full family coverage for hospitalization; restructuring tenure and promotion policies to cover the part-time faculty; and searching for women for the board of trustees.

No bibliography is appended.

Equal Employment Opportunity Commission, Elementary-Secondary School Staff Information, 1973, mimeographed data report, Washington, D.C., 1975.

Descriptors: Elementary and Secondary Staff, Elementary and Secondary School Teachers, Elementary and Secondary School Principals

Type of material: Statistical report

Subject: Elementary and secondary school staff by sex and racial/ethnic group.

Population: Sample drawn from public school systems and schools with 15 or more employees.

Date: Data pertain to 1973.

Method: All school districts are sampled by size of enrollment: large districts (1,800 and over) sampled annually; districts of 900-1799 sampled every other year (half one year, half the next); districts of 450-899 are sampled on 25% basis (one-fourth each year); districts 449 and smaller sampled on a 15% basis (district occurs in sample every 6 to 7 years).

Report forms are filed by educational institutions as required by the Office for Civil Rights in compliance with Title VI of the Civil Rights Act and by EEOC to carry out the purpose of Title VII as amended of the Equal Employment Opportunity Act of 1972. Administration of these surveys was transferred from OCR to EEOC recently. 1973 and 1974 data on elementary and secondary school staff are available on tapes and printouts; higher education staff data were collected by EEOC for the first time in 1975.

Data available: Elementary and secondary staff by job classification, by part-time/full-time status, new hires by professional/non-professional status -- all by sex and racial/ethnic classification.

No bibliography appended.

Ernest, John Mathematics and Sex, Mathematics Department, University of California, Santa Barbara, January 1975.

Descriptors: Mathematics Filter, Sex Stereotypes

Type of Material: Ten pilot studies based on varying suveys of students grade 2 through college, of girls and women in mathematics; data from other studies of sex differences in mathematics students.

Population: Students (grade school through college) in mathematics courses; women mathematicians teaching mathematics.

Date: Data gathered fall 1973.

Method: Ten pilot studies of attitudes toward mathematics: 1,324 questionnaires to grades two through twelve, most in Southern California but a few from the East Coast: returns included over 100 questionnaires for each grade except the fifth. Questionnaires to 27 elementary and high school teachers (24 women and 3 men) on their own attitudes toward mathematics and other studies, and their assessment of pupil attitudes; sample of 100 freshmen (50 men and 50 women) from entering class, fall 1973 at University of California, Santa Barbara (UCSB); students enrolled in Freshmen and Sophomore calculus sequence; students preparing to teach elementary school; 16 women mathematicians, etc.

Findings: Women's entering into professional mathematics and other scientific and technological fields requiring some degree of mathematical sophistication, is markedly affected by their low participation in mathematical training. The studies confirm the hypothesis of sociologist Lucy Sells that mathematics is a "critical filter" tending to eliminate women from such fields as chemistry, physics and engineering, architecture, and medicine, as well as mathematics.

Student attitudes in elementary and secondary school: (Sample of 1324 questionnaires.) In terms of liking the subject, mathematics was the only field which exhibited no sex differences, in marked contrast to three other subjects (English, Social Studies, and Science).

The lack of sex difference in mathematics preference held up quite well through the grades, although for both boys and girls its popularity went down in the high school years. Nothing intrinsic in arithmetic or mathematics makes it more appealing to one sex than the other, but when mathematics becomes optional (in high school and college) far fewer women take it. Men are aware that such courses are prerequisites to the kinds of future occupations (e.g., medicine, technology or science) they envision for themselves.

Peer group attitudes showed that in the elementary grades, boys felt that boys do better in all subjects and girls felt that girls do better -- in all subjects. However, by high school, 32% of the sample (boys and girls together) felt that boys do better than girls in mathematics.

Teacher Attitudes: Of a small sample of elementary and high school teachers, a majority liked mathematics better than other subjects. Forty-one percent felt boys did better in mathematics, while no one felt girls did better. However, another study indicates that in reality in third and sixth grades girls do better at arithmetic.

Sex differences in performance (i.e., class grades) were tested in entry mathematics courses as UCSB, and in no case were statistically significant sex differences found.

Of 11 men and 64 women in a mathematics course at UCSB designed specifically for future school teachers, 26% indicated indifference towards mathematics, while 14% actually disliked it. Thus, 40% of these prospective teachers are not likely to transmit a positive attitude towards mathematics to their students.

A random sample of the files of 50 freshmen and 50 freshwomen admitted to UCSB (Fall 1973) showed that 36% of entering men had four years of high school mathematics while only 16% of entering women had had that much mathematics. Examining sex differences in the elementary calculus sequence, from the fall of 1971 to the winter quarter of 1973 at USCB, showed an attirition rate for women almost double that of men. Women's participation in a UCSB mathematics honors program was increased from none to one-third by special efforts to encourage women to apply. At college entrance about the same percentage of women as men were interested in a mathematics major, but over the four years attrition is higher for women than for men. The attrition rate for women continues to rise from the bachelor's degree to the master's and from the master's to the doctorate, where only one-third of the doctorates are awarded to women.

Women need role models in mathematics, a change in the image of the female mathematician, and special encouragement to continue in mathematics at every level if the "mathematical filter" is to be removed. The solution is rather a greater emphasis on supporting women who plan to enter the profession than on affirmative action for the few women in the field.

A bibliography of 23 items is appended.

Fairfax County Commission on Women, Quality and Equality, A Study of Sex Bias in the Fairfac County Public Schools, Second Report, Fairfax, Va., April 1974, 135 pages.

Descriptors: Elementary and Secondary School Administrators, Elementary and Secondary Teachers, Discriminatory Practices, Salaries, Attitudes of Administrators

Type of material: Research study

Subject: Sex discrimination in school personnel policies

Population: Public school personnel of Fairfax County, Virginia

Date: Most of the data gathered during 1973.

Method: Teachers, administrators, and students were interviewed, computer data assessed, textbooks reviewed. Because of limited funds. sophisticated methods were not used, but the Commission believes there is sufficient information to present a realistic assessment of the areas discussed.

Findings: In reviewing employment practices and how they affect discrimination, the Fairfax County Commission on Women focused on the low participation of women in administration and pervasive salary differentials.

Out of 11,000 employees of the school system, almost 8,000 are women, but the organization is controlled and operated by men. No women was employed as a principal of an intermediate school, and only one women was principal of a high school. Nearly 70 percent of all educational administrators surpassed the average salary of women administrators. Although 73 percent of all classroom teachers are women, the average salary of men teachers was nearly $1,500 more per year than that of the women teachers. In every group of educational employees in the study, except that of elementary school principal, men earned a higher average salary than women and held more administrative positions than women. The Commission also criticised the policy of allowing salary credit for military experience while denying it for child-raising. The short period of leave allowed for childbirth and the lack of paternity leave were also singled out as contributing to the persistence of sex bias.

The study found that sex bias in the Fairfax County Public Schools is a problem of attitude, not of conscious discrimination. Because of stereotyping and long-ingrained attitudes, both women faculty and women students are restricted to an inferior status.

The Commission recommended the adoption of an affirmative action program, accompanied by a review of job categories and salaries, and a review of methods of evaluating the performance of teachers. Findings and recommendations on sex bias in guidance counseling, audiovisual materials, textbooks, and athletics were also included in the report.

No bibliography appended.

Feldman, Saul D., *Escape from the Doll's House*, Report Prepared for the Carnegie Commission on Higher Education, M^{c}Graw-Hill Book Co., New York, N.Y., 1974.

Descriptors: Academic Disciplines, Career Choice, Graduate Students, Postsecondary Education

Type of Material: Research Study

Population: Women in graduate and professional school education.

Major subject matter: Characteristics of the "feminine and masculine" disciplines and the characteristics of the women who choose each; impact of beliefs, behavior, and marital status on men's and women's success in academic careers.

Sample: Of the 303 institutions in the ACE 1968 sample, 158 supplied lists of graduate students and faculty. Of the 310,008 graduates students, 51,682 were sent questionnaires in March 1969. Of the 116,115 faculty members, 100,290 were sent questionnaires; 32,963 graduate students and 60,028 faculty returned completed questionnaires.

Analysis: The study examines aspects of inequality in graduate education: academic disciplines, career choice, effects of marital status, and types of discrimination. Although the study is focused on women, sex-based inequality can only be determined by comparing the status of women with that of men.

Findings: Within graduate education there is a great deal of inequality based on sex, but inequality does not necessarily result from discrimination.

The issue of underrepresentation is only a very small part of the problem. Women who do enroll are less likely to receive degrees, are most likely to be enrolled in fields that are low in power,privilege, and prestige: the so-called "feminine" disciplines. Women who teach are less likely to aspire toward the more prestigious academic positions although their lack of aspiration does not seem to be based on lack of ability or prerequisites. There is some evidence that women are not as dedicated to academic careers as men; however, given equal opportunity, any differences in dedication disappear. Women are constrained by their sex role when they attempt to balance marrage with life as full-time students in ways that do not constrain married men. Must of this results from the inputs that women bring with them into higher education. There are no immutable behavioral differences based on sex; but rather, differences are based largely on stereotypes of the sex roles of men and women. Women in the "masculine" fields are more likely to have attitudes similar to those of the men in their fields, than to other women.

Until differences in socialization and the use of stereotypes disappear, patterns of inequality are likely to continue. However, every level of education tends to perpetuate the stereotypes.

A list of 151 references is appended.

Feldman, Saul D., "Impediment or Stimulant? Marital Status and Graduate Education," American Journal of Sociology, Vol. 78, No. 4, January 1973, pp. 982-995.

Descriptors: Graduate Students, Women's Life Patterns, Post Secondary Education

Type of Material: Research study

Subject: Influence of marital status on success in graduate school

Population: Sample drawn from graduate and professional school students in 158 U.S. colleges and universities

Date: Questionnaires sent Spring 1969

Method: Carnegie study of 1969 consisted of approximately 33,000 completed mail questionnaires, (65%) response rate. Most of the analyses for this study were done on a subsample of U.S. citizens and full-time students (one-in-three of single men, N=2,301; one-in-four of married men, N=1,821; all single and married women, N=2,301, and N=1,382; and all separated and divorced men N=161 and women N=227).

Findings: For the larger sample, more women than men are likely to be single (39% compared to 29%); married women more likely to be part-time students; married and divorced students (both sexes) likely to be older.

For the subsample: Women are generally more likely to mention intellectual motives for study, but single and divorced women are as likely as men to mention financial motives. Men are most likely to say they have never considered dropping out of graduate training, but divorced women are as likely to deny the possibility of dropping out. Women are generally more likely to feel pressure to drop out, especially from husbands and from emotional strain; divorced women are apparently under less pressure than their married women colleagues.

Divorced women (as with men) are more likely to expect to subordinate other aspects of life, including family, to their work, and like men (and unlike other women) to be less interested in a teaching career. In general, the married men and the divorced women seem to be the most committed and most active of the graduate students.

A bibliography is appended.

Fidell, L.S., "Empirical Verification of Sex Discrimination in Hiring Practices in Psychology," American Psychologist, Vol. 25, No. 12, December 1970, pp. 1094-1098

Descriptors: Attitudes of Administrators, Hiring Practices, Sex Stereotypes

Type of material: Research study

Subject: Academic hiring practices as related to sex.

Population: Chairmen (or person most responsible for hiring) of departments of psychology of the 228 colleges and universities offering graduate degrees in psychology.

Date: Not stated

Method: One-paragraph descriptions of ten fictitious Ph.D.s in psychology sent all department chairmen. For 8 of the 10 descriptions, two forms (a masculine and a feminine) were used differing only in first names and pronouns. Two forms of the list were sent; in each, four (different) paragraphs were given in feminine form. The chairmen were asked to rate each "candidate" by acceptability and to rank all ten in order of desirability. Also asked to state at what level each might be offered a position (from lecturer to full professor). A total of 147 (64%) usuable responses were returned.

The Komolgorov-Smirnov test of similarity of two distributions was applied for men and for women; the probability that the two distributions are the same is less than .01.

Findings: Clear sex differences were obtained in response to the level of the offered position. The model level of offer for the women was assistant professor and for the men, associate professor. Only men were offered full professorships, and men were offered more academic positions leading to tenure. In ranking all ten psychologists by desirability, the average rank order for men was 8.88 and for women, 8.12.

The authors conclude that the level at which the holder of a Ph.D. would be offered a position in psychology apparently depends not only on the person's academic creditials, but also on the person's sex.

Three references are given and an appendix with the text of the ten paragraphs.

No bibliography is appended.

Fishel, Andrew, and Pottker, J., Women Lost Out: Is There Sex Discrimination in School Administration?, The Clearinghouse, Vol. 47, No. 7, March 1973, pp. 387-391

Descriptors: Administrative Personnel (Elementary and Secondary), Elementary and Secondary Education, Sex Stereotypes

Type of material: Literature review

Subject: Discrimination against women in educational administration

Population: Samples drawn from educational administrators

Date: Studies published between 1956 and 1972 (most since 1965)

Observing that women do not fare well in appointments to administrative positions, since they hold only 15 percent of all U.S. principalships and assistant principalships at elementary and secondary school levels, this report cites a variety of studies which disprove the rationalization that men are better suited for the principalship. A 1956 Florida study, a 1960 National Principalship study, a 1967 Texasstudy, and a 1971 study of New York State administrators comparing men and women principals show that women principals rank high in democratic leadership qualities, parental approval, teacher approval, tolerance of freedom, and concern with the objectives of education.

Such studies indicate that the current criteria used by school boards and superintendents to hire principals are not related to the characteristics needed for success; rather, sex is the determing factor. This in turn reduces the number of women in higher administrative positions as women with credentials are not promoted. There are many women in the profession with the credentials, but studies have found that women teachers less often aspire to become administrators than male teachers do. The authors point out that beginning women teachers are far more likely to aspire to become principals than are experienced teachers since they have not yet become discouraged. Only when societal bias against women in authority is overcome will women hold positions commensurate with their ability and qualifications.

School boards and superintendents should voluntarily seek out able women and encourage them to seek administrative posts.

A list of eleven studies is appended.

Fortney, Judith, "Achievement as an Alternate Source of Emotional Gratification to Childbearing," (mimeographed), revision of paper given at the Population Association of America meeting, Toronto, Canada, April 1972, 38 pp.

Descriptors: Sex Roles, Women's Working Patterns, Child Bearing/Rearing

Type of Material: Research study

Subject: Relation of childbearing to sex-role concept and work experience

Population: Sample drawn from faculty wives

Date: not stated

Method: Sampling method not stated. Hour-long interviews held with 200 faculty wives of whom one-third were 45-50 years of age and two-thirds were 30-35 years of age. The dependent variable chosen is having three or more children (two children being considered the "minimum obligation" to social pressures against childlessness and only children). The chi square test of significance was used.

Findings: The young housewives were more likely to have more children (48% of housewives, 29% of employed women had three or more children). The hypothesis that women in less rewarding employment would have more children was supported, but there was no gradation of difference between college educated women and those who had been to graduate school. There was some, but not strong, support for the hypothesis that women in professional or managerial work would have fewer children. The hypothesis that women who liked their work would have fewer children was weakly supported. Data indicated that women in part-time work were likely to have more children.

Activity in clubs or political groups was not related to smaller families, though involvement with some sort of creative work did have some relation to smaller families. Traditional role preference was a relatively good predictor of fertility.

In general, work can be an alternative to childbearing but the two should not be regarded as mutually exclusive. Nor is it probably correct to suppose that the decision to have a child is always a deeply weighed matter.

A bibliography of 22 items is appended.

Fuentes, Sonia Pressman, and Glass, Elsa D., Sex Discrimination in Educational Institutions: A Study with Emphasis on Employment Opportunities in Higher Education, Legislative Counsel Division, Office of the General Counsel, Washington, D.C., December 3, 1971.

Descriptors: Financial Aid, Hiring and Promotion Practices, Postsecondary Education

Type of material: Literature review

Subject: Sex discrimination against women as undergraduate, graduate students and as faculty.

Population: Academic women as students and faculty.

Date: Literature published from 1968-70; especially statements from Hearings on Section 805 of H.R. 10698 before the Special Subcommittee on Education and Labor, 91st Congress 2nd Session (1970).

Findings: Sex discrimination in higher education is accomplished by admission quotas in undergraduate and graduate schools, higher admission standards for women than for men, and discrimination in financial assistance for graduate study in scholarships, fellowships, research grants, and teaching assistantships. In 1969 women represented 33% of graduate students but received 28% of NDEA fellowships awards. At New York University and Cornell, for example, women were virtually excluded from certain scholarship grants. This seriously limits the ability of women to compete in the academic labor market.

The higher the rank at a university, the fewer the women. The last time a woman was hired as a professor in the department of psychology at the University of California, Berkeley, was in 1924, yet women received 23% of the doctorates in psychology at this university. At the University of Chicago, the percentage of women faculty members is lower now than it was in 1899. The Rossi study of graduate departments in sociology found women comprised 30% of the Ph.D. candidates, 27% of the full-time instructors, 14% of the full-time assistant professors, 9% of the full-time associate professors, 4% of the full-time professors, and 1% of the chairmen of graduate sociology departments. In 1968-69 women constituted 22% of the graduate students and 19% of the Ph.D.'s; and there was not one woman among the more than 400 tenured professors in the Harvard University School of Art and Science. Where men and women were equally qualified, hiring officials favored the selection of men for faculty appointments. It was found that among married women at UCB, 23 women Ph.D.'s married to men teaching at the University held temporary or part-time positions although the women were qualified for full-time work; thus, their talents were not fully utilized.

Nepotism and mandatory maternity leave policies also cause women to lose their tenure and seniority rights. Not until 1972 did Title VII of the Civil Rights Act cover teachers or state institutions.

The authors conclude that the pattern of discrimination in academe from admission into college to employment as a faculty member is so apparent that the only hope for complete reform lies in the passing both of new legislation and the Equal Rights Amendment.

Forty-eight notes and references are given.

Gemmell, Suzanne, "Affirmative Action Officers in Higher Education," Doctoral Dissertation, Indiana University, Bloomington, Ind., 1974.

Descriptors: Affirmative Action Officers, Postsecondary Education

Type of Material: Research study

Subject: The role of the affirmative action officer

Population: All affirmative action officers in institutions of higher education with enrollments over 10,000.

Date of Research: Questionnaires sent and follow-ups made October through November 1973.

Method: Nationwide study of affirmative action officers in all higher education institutions with enrollments over 10,000. Institutions chosen on basis of listing in the Education Directory 1972-73; 218 universities and two-year and four-year colleges were found to have the required enrollments.

A questionnaire was devised asking for definition of functions and a self-rating level of competence.

Usable responses were obtained from 171 institutions (78.4%). Of these, 38 (22.1%) had no identifiable affirmative action officers. Of 133 respondents, 65 officers served part-time and 68 served full-time.

Results are presented as frequency distributions and percentages, and rank order tabulations; chi squares computed where it was important to determine if differences could have occured by chance.

Findings: Full-time and part-time officers tended to be quite different: part-time officers were likely to be white men; full-time officers more likely to be women, Blacks or other minorities. Full-time officers were younger and had lower academic rank.

	Full-time	Part-time	Total
Men			
White	3%	57%	29%
Black	34	12	23
Spanish-American	4	5	5
Asian-American	-	2	1
	41%	76%	58%
Women			
White	41%	15%	29%
Black	16	6	11
Spanish-American	-	-	-
Asian-American	2	-	1
N.A.		3	1
	59%	24%	42%

In general, two-thirds have held the position for less than two full years. About one-third have doctorates, one-fourth have bachelors, the remainder have masters degrees; major field is most likely to be (in order) education, political science, public administration, business/economics. The course work felt to be most useful for the job is psychology/counseling, law, sociology, and personnel management. Background experience has been mainly (in order) university administration, university faculty, and business administration, and experience in administration is felt to be the most useful experience. The main skills felt to be needed for the job are ability to work with people, understanding of administrative procedures, and understanding of the need for and problems related to affirmative action.

Fifty-three percent had academic rank. Salaries of full-time officers varied, but the three who earned least were women.

Institutional context: 73% had no professional staff; 63% felt they had sufficient authority (the part-time officers felt more certain of this); the major factors limiting authority (mentioned more often by full-time officers) were: power only to recommend and inability to hold administrators accountable. Three out of four said that the president or chancellor of the institution was very supportive; little obstruction was reported but when reported, the most obstructive group was likely to be the faculty. Women and minority faculty were seen as supportive even when the faculty in general were not. The main causes of problems were felt to be: lack of understanding, fear from the White men faculty, racism or sexism, and dislike of change.

The unsatisfactory aspects are problems of working with government agencies--with ensuing delays, lack of clarity and consistency.

Most officers do not regard the position as a permanent career; many expect to go eventually into higher education administration.

Recommendations: Institutions should choose affirmative action officers who exemplify nondiscrimination, who have ability in administration and in working with people, and should give the officers adequate staff, authority and support. The affirmative action officers themselves need training in the legal requirements of affirmative action, and in collective bargaining; workshop training sessions might be a suitable training method. Research is needed to determine the status of affirmative action in the smaller institutions, how the regular administrators view the work of the affirmative action officers, and to assess the effect of affirmative action programs.

A bibliography of 45 items is appended.

Gordon, Nancy M., Morton, Thomas E., and Braden, Ina C., "Faculty Salaries: Is There Discrimination by Sex, Race, and Discipline?," The American Economic Review, Vol. 64, No. 3, June 1974, pp. 419-427.

Descriptors: Postsecondary Education, Salaries

Type of Material: Research study

Subject: Salary differentials by sex, race, and discipline

Population: Academic faculty of a large urban university

Date: Data given as of October 1970

Method: Personnel department furnished records of between 1,000 and 2,000 academic employees (precise number suppressed to maintain anonymity of institution) 18% of whom were women. Information included date of birth, date of employment by university, sex, race, degrees held, rank, department and salary.

To endeavor to ascertain the "true" relationship between salary and the other variables, extensive one-, two-, three- and four-way cross tabulations were made. A piecewise, linear function for age proved necessary, and there seemed to be significant interactions between sex and seniority, race and department. Thus, separate models were fit for each sex, as well as a model for all employees. Both salary and the logarithm of salary were used as dependent variables. Model I fits a common salary structure for both sexes; Model II fits separate specifications by sex.

Findings: The salary profile for women differs from that of men primarily in the effects of race, age, and department. A woman faculty member earns 11% less than can be predicted for a man with the same characteristics. Length of women's employment with the universities is not associated with commensurate increase in salaries. Salaries among departments vary, and departments having larger numbers of women have lower median salaries than departments with few women.

Seniority has negative coefficients with salary. The combined age profile peaks at about age 45; the sex-specific profiles are similar but the profile for women peaks about 15 years earlier than for men.

Both Black men and Black women earn significantly more than Whites of the same sex, possibly due to the recent sharp increase in demand for Black faculty and the small available supply. Data collected on a previous study include marital status, but not race. There the income profiles indicated that single men earn approximately 3% less than comparable married men, whereas single women earn approximately the same as married women.

A bibliography of 23 items is appended.

Graham, Patricia, A., "Status Transitions of Women Students, Faculty, and Administrators," Academic Women on the Move, eds. Rossi, A., and Calderwood, A., Russell Sage Foundation, New York, N.Y., 1973, pp. 163-172.

Descriptors: Administrative Personnel (Postsecondary), Faculty, Postsecondary Education

Type of material: Commentary by a member of the history and education faculty at Barnard College and Teachers College, Columbia University; Dr. Graham has been Chairperson of the American Historical Association Standing Committee on the Status of Women Historians.

The author discusses two crucial junctures in a woman's academic career: (1) transition from graduate student to faculty member, (2) from faculty member to administrator. Once a woman achieves her doctorate, the part-time lecturer or full-time instructor expects promotion to Assistant Professor with full status. This transformation does not always occur, however, and further promotions are even less likely. While 13.5 percent of doctorate recipients at leading graduate schools are women, only 2 percent of full professors at such schools are women. The problem is particularly severe for the married Ph.D.'s who publish more than any other group. Single women are usually hired for the more lucrative positions and earn an average of $2000 more annually than married women doctorates. Married Ph.D.'s may also be faculty wives and face the additional problem of anti-nepotism rules.

The few women in administration are likely to be assigned to "women's" tasks. The top woman administrator in most American coeducational colleges and universities is the dean of women, now often referred to as the associate dean of students. A woman administrator is also hampered by not having a wife to assist her in the social and community obligations so often regarded as part of an administrator's duty. Within the last year a number of institutions have promoted junior women faculty members to junior administrative positions. Whether these women can eventually move into senior positions remains to be seen.

A list of 5 references is appended.

Graham, Patricia A., "Women in Academe," Science, 1970, Vol. 169, No. 3952, September 25, 1970, pp. 1284-1290.

Descriptors: Discriminatory Practices, Faculty, Postsecondary Education

Type of material: Commentary by an associate professor of history and education at Barnard College and Teachers College, Columbia University, American Council on Education Fellow at Princeton, 1969-70.

Findings: The lack of widespread feminine militancy on college campuses gives administrators opportunity to move to correct the demonstrated lack of status for women on campus. Possible corrective measures include: appointing more qualified women to positions in administration and teaching; increasing the availability of part-time teaching and other professional positions; instituting more realistic maternity leave policies; making rigid tenure procedures more flexible; abandoning nepotism rules so that both husband and wife can work at the same institution; developing day care centers; and instituting curriculum changes to show contributions women have made in history.

The need for these changes is shown by recent research findings. Women represented 47% of the undergraduate population in 1920, and 15% of them earned Ph.D. degrees. Today, only 40% of the undergraduate population are women, and only 10% of them earn the Ph.D. Among persons qualified to be college students who do not enter college, 70% to 90% are women. Women represent only 18% of college and university faculties, and most of them teach in female-oriented subjects such as education, social science, and home economics.

Single women Ph.D. holders achieve professional status and high salary on college campuses faster than married Ph.D. holders, although consistently less often than men with Ph.D. degrees. Possible explanations for the low proportion of women employed in higher education include the discriminatory factors inherent in "equal" recruitment and employment procedures, the internal ambivalence experienced by many women about career versus home, and the cultural attitude against women taking on the responsibilities of a career. The scarcity of adequate household help and lack of day care centers are also influencing factors. The author surveyed recent research on the status of women in higher education, discussed the history of higher education for women, and used personal observation and experiences to support arguments presented. (Annotation from Astin, Suniewick, and Dweck, Women, A Bibliography.)

A list of seven references is appended.

Graham, Patricia A., "Women in Higher Education: A Biographical Inquiry," Educational Resources Information Center, Washington, D.C., 1974, 12 pages

Descriptors: Women's Life Patterns, Women's Working Patterns, Faculty, Sex Stereotypes

Type of material: Informal biographical study

Subject matter: Factors related to professional success of women.

Population: Successful women educators

Date: Women's role in higher education from the turn of the century to the early 1970's.

Method: Informal review of biographies, institutional histories, and educational statistics.

Findings: Higher education in the United States has been dominated by men, and the leadership which has received the most attention has been masculine. This stress has tended to ignore the role played in higher education by women. In studying the women, the focus on success brings forth a "set of women that is significantly different from other women educators and from other women." It is notable, for instance, how many such women were single or widowed (e.g., women college presidents). From their life histories, it appears that the women who have been successful have gone through a more finely meshed screening process than have the men.

Investigations of backgrounds of successful women faculty and administrators suggest that many of these women have had one or two experiences: attending an all-girl's high school or college or coming from an immigrant family. In single sex institutions, a teacher can support and encourage her students vigorously in a fashion that is rare in coeducational institutions where both faculty and students often tend to regard male students as more meritorious of academic consideration. Other areas that need further study concerning women are discussed including the role of the academic wife, influence of college life on women students, effects of coeducational institutions on women, and sex-linked curricula. (Adapted from Educational Resources Information Center, U.S. Department of Health, Education, and Welfare.)

A list of 11 references is appended.

Greenblatt, Bernard, and Eberhard, Lois, Children on Campus; A Survey of Pre-Kindergarten Programs at Institutions of Higher Education in the United States, Women's Bureau, U.S. Department of Labor, Washington, D.C., 1973, 108 pp.

Descriptors: Child Care, Postsecondary Institutions

Type of Material: Research study

Subject: Child care facilities offered by U.S. institutions of higher education

Population: Sample drawn from currently operating child care programs offered by coeducational, accredited (as of 1970), senior colleges and universities in the U.S.

Date: Questionnaires sent Spring 1971

Method: Sample one-in-four of universe of 655 small (enrollment under 2,500) institutions and one-in-three of 438 large institutions; therefore 163 small and 147 large institutions selected. Of a total of 310 institutions, 302 responded. Two-stage inquiry: Presidents asked if institution had any child-care facilities; if so, to identify them. Director of programs then sent questionnaire. Of 302 institutions, 100 had one or more programs and identified 134 programs (28 institutions had more than one program). Of 134 programs, 118 furnished answers to the questionnaire.

Appendix D gives stratum weights and sampling variability data and a table showing estimated percentages and percentage ranges for a 95% level of confidence.

Findings: It is estimated that there are about 425 pre-kindergarten programs on U.S. campuses serving about 17,000 children. This is a small number compared to the numbers of students, faculty and other potential patrons of such service.

Of programs reported, 32% were nursery schools, 18% laboratory schools, and 21% day-care facilities (others were indeterminate or combinations of these categories). Mean enrollment was about 40 children and 57% of the programs were enrolled to capacity. Faculty members had started 44% of the programs, administrators started 25% and student-parents 12%; student-parents, however, had started over half (52%) of the day-care programs. Nine out of ten programs were physically located on campus.

The institutions furnished more than half the funds of three-fourths of the nursery and laboratory schools, but only about one-fourth of the day-care centers. University affiliation was especially likely to be required for admission to day-care centers. The day-care centers are more likely to have flexible hours and to be recently founded (65% since 1970). At present pre-kindergarten programs are a relatively miniscule part of the academic scene, and in the critical fiscal atmosphere of the 1970's programs regarded as tangential are likely to be financially pinched.

No bibliography; 15 references given.

Gross, Neal, and Herriott, Robert, Staff Leadership in Public Schools, A Sociological Inquiry, John Wiley and Sons, New York, New York, 1965.

Descriptors: Administrative Personnel (Elementary and Secondary), Career Development

Type of material: Survey research of all supervising school principals in schools in cities of 50,000 or more

Subject: Leadership qualities of elementary school principals

Population: Principals of 175 elementary schools in 40 large school districts where at least 10 usable forms were returned by teachers

Date: 1960-61 school year

Method: As part of the National Principalship Study, a 5% sample of all supervising principals in school districts of cities of 50,000 or more was selected--508 principals in 41 cities. Of 4,760 teachers in the 508 schools who were sent questionnaires, 3,367 teachers in 476 schools responded. Three variables were used: sex, age and marital status. For this study, 175 schools in all regions of the country, in 40 large school systems where at least 10 teachers completed the Elementary School Questionnaire were selected.

Findings: The study attempted to establish an Elementary Principal Leadership (EPL) score on the basis of teacher responses. Sex has no apparent relationship to EPL scores, nor does marital status; however, there is a significant negative relationship between age and EPL score.

When the three variables (sex, marital status, and age) are considered together, unmarried principals have higher scores than married for both men and women (although the difference is greater for unmarried men than women). When age is controlled, in two of the three groups, women have higher EPL scores than men.

The negative relationship of age to EPL score exists for single women and married men but not for married women.

In 172 of the 175 schools, the scaled reports of opinion of the principal's leadership varied for 4 to 10 teachers. This raises the question as to whether the variation of responses from the teachers was more attributable to the personal characteristics of the teacher-observers than to the behavior of the principals.

Harmon, Lindsey R., High School Ability Patterns: A Backward Look from the Doctorate, National Academy of Sciences, Office of Scientific Personnel, Scientific Manpower Report No. 6, Washington, D.C., August 20, 1965.

Descriptors: Doctorates, Field of Specialization, Women's Working Patterns

Type of material: Research study

Subject: Ability of doctorates as shown in high school performance

Population: Sample drawn from all persons who earned the doctorate at U.S. Universities from 1959 through 1962.

Date: Questionnaires sent November 1963 with followups to spring of 1964

Method: From the Doctorate Records File of the Office of Scientific Personnel, National Science Foundation, 42,105 persons were identified who earned doctoral degrees from 1959-62. Of these, 35,190 graduated from 10,000 identifiable U.S. high schools. Questionnaires sent to these schools; 7,458 schools replied giving information on 23,980 doctorates. From these a representative sample was chosen on basis of regional distribution, type of school, and size of graduating class. The sample for analysis included 20,400 doctorates.

Schools were also asked to provide the same information for the classmate alphabetically next after that of the person receiving the doctorate; returns were less good for this group, but a final analysis sample of 10,831 was selected.

The questionnaire included data on grades, rank in graduating class, and mental test scores; grades summarized into grade point averages (GPA's) for English/languages, social studies, mathematics, and science. Data were compared by sex, type of school, size of graduating class, region of country, year of doctorate, and field of specialization. A multivariate discriminant analysis was performed to determine how extensively the population was differentiated at high school level by grades, test scores, and course choices.

Findings: The ability of the doctorates was about 1.5 standard deviations above the mean of the general group. There were ability differences by field of specialization: specialists in the "hard" sciences showing the greatest ability except in the area of language ability where the arts-humanities doctorates excelled. After the hard sciences, doctorates in arts-humanities showed higher ability, followed by doctorates in social science, psychology, and education. On the basis of the high school information, it was possible to predict the discipline choice of about 40% of the doctorates. Geographical differences showed highest ability in the northeast and lowest in the south.

Sex differences: Data on classmates showed that the girls generally had the higher GPA's though boys tested higher in mental ability. Girls had received higher grades in all study areas including mathematics and science. The Ph.D. women, however, had received higher grades and test scores in all areas including mathematics and science. The Ph.D. women generally showed the highest ability, and married women showed higher ability than did the single women. It was hypothesized that sex was a barrier to attaining the doctorate for a woman and that family responsibilities were an additional barrier. Therefore, the married women who had overcome the greatest difficulties had probably possessed the greater ability. By sex/by marital status the sample ranked thus: married women, single women, single men, and married men.

The study found no measurable change in general ability level in spite of the great increase in numbers of doctorates.

A bibliography (of high school studies by the Office of Scientific Personnel) of 8 items is appended.

Harris, Patricia, "Problems and Solutions in Achieving Equality for Women," Women in Higher Education, Furniss, W., and Graham, P., American Council on Education, Washington, D. C., 1974, pp. 11-21

Descriptors: Administrative Personnel (Postsecondary), Discriminatory Practices

Type of material: Commentary by a lawyer, partner in Fried, Frank, Harris, Shriver, and Kampelman.

Patricia Harris discusses the scarcity of women, even those with the Ph.D., appointed to professional and administrative posts in higher educational institutions. She states that the pool of women Ph.D.'s has been kept at a minimum by discrimination against women Ph.D. candidates.

Recently, many colleges and universities have been searching for "a woman vice-president"--frequently pressed to do so by the students. She maintains however that women themselves are apprehensive about moving into administrative positions and do not support other females with leadership qualities. If there is to be a change, women must take strong affirmative corrective action. Complaints and suits to recover money damages for discriminatory practices must be filed against both educational institutions and individuals to discourage continuing discriminatory practices. Nepotism rules should be eliminated; women candidates for academic employment should form organizations to inform institutions of the availability of qualified women applicants. Scholarship aids and placements for women should be made available for women on the same basis as men. Women should be credited with appropriate non-academic experience and should be paid accordingly.

Women should not rely on the federal government to establish the standards, but effective pressure must be instituted by individual and in the mode that most surely insures institutional response, financial exposure.

No bibliography appended.

Hartnett, Rodney T., The New College Trustees: Some Predictions for the 1970's, Educational Testing Service, Princeton, N.J., 1970, 81 pages.

Descriptors: Postsecondary Education, Policymakers

Type of Material: Research report

Subject: Attitudes and characteristics of college trustees

Population: Sample drawn from trustees of institutions of higher education

Date: Spring 1968: Followup questionnaire to Presidents of the same institutions, Fall 1969

Method: Data on college and university trustees gathered from a sample of 536 institutions (sampling method detailed in earlier report, College and University Trustees: Their Backgrounds, Roles, and Educational Attitudes, Educational Testing Service, 1969). To assess recent changes a second study done fall of 1969: Presidents of the same 536 sent questionnaires asking information on recent changes of additions to trustees, especially in the underrepresented groups (e.g., women, Blacks, younger persons, persons with arts backgrounds, faculty, and students). Received 402 (75%) usable returns.

Findings: First study showed the remarkable homogeneity of trustees, who were likely to be men (87%), older (95% forty years old or older), White (96%), and from professional ranks (mainly in business, only 13% from the field of education, virtually none from the creative arts). Women constituted 13% of the national sample and nearly half (45%) served as trustees of women's colleges; 16% served universities; only 8% served on the boards of coeducational or men's colleges or universities. The women trustees were found to be more liberal and more committed to academic freedom.

The followup study showed some changes: 14% of schools not predominantly Black had added one or more Blacks to the board; 31% had added one or more persons under 40; 17% of the institutions not predominantly female had added one or more women. Most of the institutions, however, had added only one member in these underrepresented categories, and those adding such members were generally those which had originally shown a low representation of atypical groups. It is difficult, to predict whether the addition of women and other underrepresented groups will constitute a major shift of board composition, or will prove to be only a token measure.

Six references are given.

Hemphill, John K., Griffeths, Daniel E., and Frederiksen, Norman, Administrative Performance and Personality, Bureau of Publications, Teachers College, Columbia University, New York, New York, 1962.

Descriptors: Elementary and Secondary School Principals

Type of Material: Research study

Subject: Administrative performance

Population: Test subjects drawn from elementary school principals

Date: Tests carried out from May 1958 to May 1959

Method: A group of 232 elementary school principals selected with the aid of superintendents and local school districts; attempt made to get variety of subjects, but no to get a representative sample, although comparison with 1958 National Education Association nationwide survey showed remarkably similar demographic characteristics.

Test situation was a simulated elementary school using filmstrips and recordings for background on community and faculty, and "in-basket" tests to ascertain and evaluate administrative behavior (scored on 68 categories); plus a series of tests to measure personality factors, vocational interests, administrative attitudes and cognitive ability.

Testing took place at 11 centers in all major areas of the United States for 12 periods lasting a week each, with some 20 participants at each week-long session.

Questionnaires also sent to administrators of the principals' local school districts, and to the teachers in their schools.

Findings: Characteristics of the principals: 137 men and 95 women (27 men and 10 women were Black, no other minorities represented); 38 from the northeast, 104 from the south, 30 from north central, 60 from the west, 132 from large cities, 89 from small cities and suburbs, 11 from small towns and rural areas. Of those 35 years old or younger, 20% were men, 1% were women; of those 46 and over, 38% were men and 84% women. Fifty-two percent of the women and 4% of the men were single and 15% and 2%, respectively, were widowed, separated or divorced. Nearly 30% of the women had less than a masters degree compared to 18% of the men; 54% of the women and 71% of the men held the masters, and 17% of the women and 12% of the men had graduate work meyond the masters. The women had generally more years of administrative experience: a mean of 13.2 years compared to 9.5 for the men. The women were more likely to have had experience teaching elementary school, the men teaching secondary school.

Administrative performance (only findings on sex differences noted): Women tend to spend more time exchanging information, maintaining personal relationships, and responding to outsiders. Men are more likely to comply with the suggestions of others and to analyze situations. Women are more likely to ask subordinates for information, discuss problems more, and make use of information provided by others. Men are more likely to take a decision and follow it with little discussion; they are more likely to follow pre-established patterns. Women are more likely to involve others in actions and decisions.

District administrator's and teachers are likely to feel somewhat more positive toward women than toward men principals. The "age and experience" factor tends to favor women. The women tend to be more "democratic" and to maintain better human relationships. Administrators rate women principals somewhat higher in knowledge of teaching methods and techniques, and in concern with pupil participation.

In general there appears to be no reason why men should be preferred over women for the elementary school principalship.

A bibliography of 153 items appended.

Henschel, Beverly J. S., "A Comparison of the Personality Variables of Women Administrators and Women Teachers in Education," Doctoral Dissertation, University of Utah, Salt Lake City, Utah, 1964.

Descriptors: Administrative Personnel (Elementary and Secondary), Attitudes of Administrators, Attitudes of Teachers, Attitudes of Faculty, Elementary and Secondary School Teachers, Faculty

Type of Material: Research Study

Subject: Personality factors of women teachers, professors, and administrators

Population: Samples drawn from women school administrators of ten western states (Arizona, California, Idaho, Nevada, New Mexico, Montana, Oregon, Washington, Wyoming, and Utah), elementary and secondary women teachers of the Salt Lake City School District, and women faculty from the campuses of Bringham Young and Utah State Universities, and the College of Southern Utah; plus school district superintendents from entire state of Utah.

Date: Data collected during winter of 1963-64

Method: Administrators and superintendents drawn from state records and matched with teachers and faculty members from Utah. The Edwards Personality Preference Schedule (EPPS) was sent to all these women and usable forms returned by 43 administrators, 27 superintendents, 29 faculty, and 37 teachers; a total of 136 respondents.

Tests were scored, medians and standard deviations found, and the t-test for significance applied.

Problem: In view of research findings that men are often considered to make better administrators, what personality characteristics do women in education actually show?

Findings: By specific groups: The administrators are very achievement oriented, more so than the norm for men; the same holds for the "dominance" characteristic. They appear to be ambitious and capable women. They score very low in "nurturance" and need for order . . . in fact, are similar to men in this regard. They score high in "heterosexuality," however, and low in aggression. They are "introceptive"--analytic of and sensitive to others.

The superintendents score rather high in need for achievement and dominance; low in nurturance and need for the support of others. They are not particularly autonomous, do not feel great need for order; they are slightly exhibitionistic. They are sensitive to others and not aggressive.

The higher education faculty are very achievement oriented and dominant (highest of the four groups). They are somewhat exhibitionistic, very autonomous and very heterosexual. In endurance they fall near the feminine norm.

The elementary and secondary teachers showed fairly high needs for achievement and dominance; low nurturance (lower than the average for men) and low need for succorance. They follow the feminine norm in orderliness, exhibitionism, autonomy, need for change, aggressiveness, and heterosexuality. They show the highest endurance scores of the four groups, and are very introceptive--understanding and sympathetic to others.

In general, these women are more achievement oriented and dominant than the average women; they are less likely than the average woman (or even, in some cases, average men) to feel the need to nurture others. They are in these aspects "masculine." They are, however, very sensitive to others, and for all their needs for dominance, not particularly aggressive. The more achievement oriented groups are also the more "heterosexual."

A bibliography of 72 items is appended.

Hoffman, Lois W., "The Employment of Women, Education, and Fertility," Merrill-Palmer Quarterly, Vol. 20, No. 2, April 1974, pp. 99-121.

Descriptors: Childbearing/Childrearing, Women's Working Patterns, Women's Life Patterns, Fringe Benefits

Type of material: Literature survey

Subject: Interrelationships between childbearing, sex roles and work for American women.

Discussion: Working women tend to have fewer children, and this becomes a sort of social birth control, although the generalization does not hold for all conditions--in less developed countries, for instance, or where extended family ties are strong. Nor can one be sure the relationship will hold in the United States if other social conditions change. The increased rates of births and of women's employment in the 1950's reflected differing responses to decreasing satisfaction with homemaking. Alternative responses included the working women having fewer children.

It seems likely that if child-care facilities become more available and husbands take a greater share of family care, women whose work is economically useful but not personally satisfying may elect both to work and have more children. There is some empirical evidence that women whose work is satisfying (and they are most likely to be middle class and better educated) will have fewer children, although voluntary childlessness is rare in all groups.

Several factors have operated to push able women toward motherhood and away from careers. Women's education has not kept pace with the trend of increased education for the country as a whole. (This is recent; prior to 1930 the average white wife was better educated than her husband - as black wives still are.) Other important deterrents are the discriminatory treatment given women in career fields and social definitions of women's roles. Career women are often regarded as unfeminine by men and women alike, and there is evidence (though not unchallenged) that women in "unfeminine" career fields may have more children--as proof of femininity--than those in careers regarded as appropriate to women. For the educated women, having a child can act as proof that she values her husband's intellect and defers to his masculinity.

The general situation may be changing. There is evidence that women are becoming more committed to advanced education and to careers. As barriers are lifted, as the chances for more rewarding salary and promotion increase, the temptation to drop out in frustration will be less. As genuine careers for women become more common, the feminine stereotype will weaken and women will be under less pressure to prove femininity through motherhood. With better child-care facilities and the husband's increased involvement in family rearing--and with improved work arrangements such as maternity leaves that do not interfere with seniority rights--barriers to women's careers are lowered. Even deliberate childlessness may become more acceptable, and the educated woman may be free to choose her own career and life pattern.

A bibliography of 94 items is appended.

Hoffman, Lois W., "The Professional Woman as Mother," paper presented at Conference on Successful Women in the Sciences, Developmental Program Report No. 21, New York, N.Y., May 1972, 12 pages.

Descriptors: Childbearing/Childrearing, Sex Roles, Women's Life Patterns

Type of material: Literature survey

Subject: The interrelationship between motherhood and career

Discussion: Women are handicapped in pursuing their careers by geographic restrictions, family obligations, guilt, and prejudice. Yet bright educated women who have combined both motherhood and career look back on their accomplishments with considerable satisfaction; more satisfaction, in fact, than bright women who have confined themselves to the traditional homemaker role.

Research on the working mother undertaken by the author failed to show any significant differences between the children of working and of non-working mothers. Indeed, maternal employment is not a simple variable: it will differ according to whether the woman likes her work or not, works from choice or necessity, what kind of child care arrangements she makes; its effects will vary depending on the age and sex of the children, and on many other factors. One study has shown that women who liked their work were good but somewhat overindulgent mothers, and their children showed the effects of this in school.

Daughters of working mothers are likely to choose their mothers as persons to admire; adolescent daughters of working mothers (especially those in the middle and upper socio-economic groups) are likely to be active, autonomous and to like their mothers without being dependent on them. Daughters of working mothers are likely to see women's roles as less restricted than daughters of non-working mothers, and to want to work themselves when they are older. They are less likely to undervalue women's accomplishments.

Women of high achievement, especially those who succeed in nontraditional fields, are likely to be daughters of educated women who worked, and to have had good relations with their fathers who approved of their independence.

There are no data on the effects on children of different career patterns--the possible differences of effects may depend on the age of the child and the type of child care arrangements available. Furthermore, social attitudes are changing so rapidly that what findings there are may soon be obsolete. For example, Horner's "fear of success" theory is now being modified; young men in recent testing are also showing anxiety in face of success.

A bibliography of 27 items is appended.

Holmstrom, Engin I. and Holmstrom, R.W., "The Plight of the Woman Doctoral Student," American Educational Research Journal, Vol. 11, No. 1, Winter 1974.

Descriptors: Doctorates, Doctoral Dropouts, Graduate Students

Type of material: Research study

Population: Sample drawn from doctoral candidates in 153 institutions offering advanced degree (but not professional degree) programs.

Date: Data collected for the Carnegie-ACE study of 1969.

Method: In 1969, ACE and the Carnegie Commission collaborated in a large-scale survey of students, faculty, and nonteaching staff in the nation's colleges and universities. The general ACE survey design and weighting procedures were duplicated for the ACE-Carnegie study. A total of 33,119 graduate students from 153 institutions responded. A random sample of every third man was taken, which yielded 3,401 cases, while the total group of women doctoral students (N = 2,815) was included. Ten stepwise multiple regression analyses were run. For each analysis, 104 independent variables were used. The demographic variables were race, marital status, number of children, parental education, size of town in which person lived while growing up, and degree of religiosity. The educational variables were current enrollment status, graduate department, undergraduate grade point average (GPA), attendance at the same institution for both bachelor's degree and doctoral work, current academic employment (e.g., teaching assistantship), and measurements of academic or professional commitment: journal subscriptions, attendance at professional meetings, publications, current scholarly activities, and decision on specialization. Financial variables were family income, adequacy of current finances, and primary source of income for graduate studies. Motivational and attitudinal measures encompassed reasons for attending graduate school, factors seen as detrimental to completing graduate work, ratings of one's own ability, satisfaction with various aspects of graduate school experience, interaction with faculty, and perception of faculty attitudes toward women. Finally, institutional measures: type of institution (university, four-year college), control (public, private-nonsectarian, Roman Catholic, other sectarian), location, enrollment size, selectivity (average ability test scores of entering freshmen), percentage of Ph.D.'s on staff, and size of library. All variables were allowed to enter the regression equations freely, with a significance level of $p < .01$.

Findings: Nearly half of the women and two-fifths of the men had considered withdrawing from graduate school. For both groups, lack of interest and emotional strain were two strong predictors of doubts about continuing graduate studies. Family responsibilities presented a problem only for men. No such variables were associated with doubts about graduate school completion for women.

Women in traditionally feminine fields, such as education and library science, were less likely than women in other fields to have considered withdrawing from graduate school.

One-fifth of the men and 31% of the women doctoral students agreed that professors in their departments did not take women graduate students seriously. These doctoral candidates also tended to believe that women students were not as dedicated as men students in their departments. Women who were in traditionally feminine fields such as education, nursing, social work, or library science, were less likely to perceive this negative attitude on the part of faculty.

Women did not believe that career would take second place to family. They tended to rate themselves as among the best students in their departments; they had already authored or co-authored a published article, and they denied that women students were not as dedicated as men. Second, there was some indication that length of time in an institution was conducive to personal interaction with faculty. The results here reveal a differential interaction rate with faculty which favors men. Women who do have personal contact with faculty appear to need qualifications different from those of men, such as longevity in a nonselective institution, or academic competence proven by publication. Perception of the faculty as having negative attitudes toward women contributed to the emotional stress felt by at least one in three women doctoral students as well as decreasing their commitment to stay in graduate school. This relationship remained significant even after controlling for such factors as academic ability, financial worries, and family demands. Conviction that women will waste their training by getting married and raising children appears to plague both administrators and faculty on one hand, and women students themselves, on the other. Yet, the increasing participation of women in the labor force, particularly married women with children, makes it imperative that a new "climate of expectation" is in order for women. Faculty and administrators, as well as students themselves, must recognize the necessity for treating women as dedicated students and as students worth training.

Biblography of nine items.

Horner, Matina S., "Toward an Understanding of Achievement-Related Conflicts in Women," Journal of Social Issues, Vol. 28, No. 2, Spring 1972, pp. 157-175.

Descriptors: Fear of Success, Sex Roles, Sex Stereotypes

Type of material: Research studies

Subject: Achievement-related conflicts in women

Population and date: Results of six studies reported: 1964--178 college freshmen and sophomores (88 men and 90 women); 1967--an all female group including 19 seventh graders, 15 eleventh graders, 27 college undergraduates, and 15 secretaries; 1969--16 women university juniors; 1969--45 women university juniors and seniors (and same group retested); 1970--15 women law school students and 37 women summer school students; 1970--36 men freshmen and 34 women freshmen (the group of women retested 3 months later).

Method: A mixed-sex competitive achievement situation was included at the end of the Standard Thematic Appreception Test: for women--"After first term finals, Anne finds herself at the top of her medical school class;" the lead for men was the same except for sex--"John" succeeds. Scoring based on simple presence or absence of statements showing conflict about the success, presence or anticipation of negative consequences, denial of effort, responsibility, or of the cue itself...

Findings: Negative attitudes expressed toward and about successful women have remained high. Unusual excellence in women was clearly associated with loss of femininity, social rejection, personal and societal distruction, or some combination thereof. Differential impact on the motivation to avoid success depended almost exclusively on career-oriented objectives, especially in nontraditional areas. The most important influences on appropriate sex role behavior were parental attitudes and those of male peers, particularly where conflict existed between standards established in youth and those that are held to be inconsistent with feminine sex-role sterotypes as women reach adulthood. This provides the basis for the conflict manifested in the motive to avoid success. Those women who had low "fear of success" or those who had high "fear of success" but who intended to continue to strive for innovative careers were women whose major male contacts were not threatened by their success, or where there was agreement that the man was the "smarter." On the other hand, where "fear of success" was high, it was frequently rooted in the woman's fear that she was the more intelligent.

The study concludes that most highly competent and otherwise achievement-motivated young women, when faced with a conflict between their feminine image and the expression of their competencies or the development of their abilities and interests, adjust their behavior to their internalized sex-role stereotype in order to feel or appear more feminine.

A bibliography of 19 items is appended.

Hornig, Lilli S., "Affirmative Action Through Affirmative Attitudes," paper presented at conferences sponsored by the New York Education Department, Syracuse, N.Y., November 28, 1972.

Descriptors: Affirmative Action, Women's Working Patterns, Faculty

Commentary by the Executive Director of Higher Education Resources Services, project to improve the status of women faculty and administrative posts, sponsored by the Ford Foundation and Brown University.

Discussion: Myths about women pervade our lives, and deeply ingrained sex stereotypes present women with their most difficult problem. Women are disadvantaged at all levels in higher education from admissions to tenure level and top administration. Women have not had great trouble in obtaining short-term appointments and off-ladder positions, but such work is likely to offer heavy teaching loads with less opportunity for research, and appointments in less prestigious institutions where women are less visible, less likely to receive professional recognition.

Affirmative action aims at non-discrimination in all employment practices and establishment of goals and timetables for achieving a non-discriminatory situation. Institutional complaints center on the latter aim and on these objections: quality is the sole reason for appointment; changes in practices will cause a lowering of standards. Qualifications are of great importance--women are less qualified, more interested in teaching than research. (Women on faculties do comparatively more teaching than research but it is not possible to establish that they do so from choice). Women have routine ability but not the drive required for upper level positions. (Yet women must overcome more obstacles to attain routine status, and therefore women in academic positions are likely to be better qualified and very highly motivated.)

From a study of dossiers and resumes, the author notices that a young man "is routinely evaluated in terms of his future promise...a young woman is not really believed to have a future" and is evaluated in terms of past accomplishment. Breaks in service count more heavily against women, and it is assumed they are qualified only for narrow areas in which they have specific training.

If women are to become full partners in the academic system, the universities must take account of the obvious differences between men and women. Maternity and childrearing leaves are needed and should cause no greater problems than other leaves such as those for military service. Part-time appointments with professional status could make women's talents available at little extra cost.

No bibliography is appended.

Howard, Suzanne, "Women Public School Teachers: Second Class, Second Rank, Second Rate?," paper prepared for Resource Center on Sex Roles in Education, National Foundation for the Improvement of Education, Washington,D.C., October 1974

Descriptors: Attitudes of Women, Childbearing/Childrearing, Attitudes of Teachers, Elementary and Secondary School Teachers

Type of material: Literature survey

Subject matter: The professional position of the woman public school teacher

Population: Women public school teachers.

Date: Literature reviewed published between 1960 and 1973, the greater part from 1970 onward.

Findings: The article summarizes literature which covers the following areas of concern to women teachers: The power structure - the increase in men teachers, especially at the secondary level, has tended to displace women. Sex typing of occupations and fields of study tends to place them in the lower, non-policymaking ranks. These factors are reflected in lower financial rewards as well.

Social-psychological factors: Women's roles as childbearers and childrearers do interrupt their working careers. Studies have shown, however, that women take no more leave time than men (maternity leaves being compared to military service leaves). Public Health Service studies show that women take no more time off than men for illness or injuries, including time for pregnancy and childbirth. In recent years women are taking less time off to bear and rear children and are more likely to combine a career with domestic responsibilities. Men are more likely than women to change jobs.

Attitudes toward women as leaders: Recent studies suggest that women are not as hostile to women administrators as had been thought. Men teachers tend to be neutral toward women principals, and it is rather the superintendents and school board members who are likely to oppose the recruitment of women administrators.

Women's attitudes toward themselves: Studies suggest that women have more self-doubts than men and that they demonstrate less ambition, but this is not proof that they lack ambition.

Training: Women are less likely than men to have specific training for upper-level jobs in education, especially graduate training in administration and supervision. Nor are women usually encouraged to prepare for administrative work; this, plus many women's unwillingness to appear aggressive, makes a vicious cycle, deterring them from seeking promotions.

Job benefits: Some schools still enforce mandatory pregnancy leaves; at others, teachers may not be taken back in their former jobs, or they may lose tenure and other benefits.

Recommendations to redress inequities based on sex are addressed to local and state school boards and to colleges of education. The author notes that the schools are traditionally agents of socialization; they contribute to a process that perpetuates the status quo, but they can and should serve as vehicles of social change.

A bibliography of 88 items is appended.

Hoyle, John R., "**Problem-Attack Behavior and its Relationship** to Sex, Prior Teaching Experience, and College Preparation of Selected Elementary School Principals," Doctoral Dissertation, Texas A & M University, College Station, Texas, 1967.

Descriptors: Attitudes of Administrators, Elementary and Secondary School Principals, Elementary and Secondary School Teachers

Type of Material: Research Study

Subject: Perception of administrative behavior of elementary school principals by their teachers

Population: Sample drawn from elementary school teachers and principals in three Texas school districts

Date: Data collected April 1966

Method: Sample of 30 elementary school principals and 314 elementary school teachers drawn from three Texas school districts of similar size and organization, selected because they were nearby and cooperative. Principals were sent a questionnaire covering personal information and information about the school and local community. The teachers were divided into two groups; one was sent the Problem-Attack Behavior Inventory (PABI) and the other the Leader Behavior Description Questionnaire (Form 2). Mean score and standard deviations computed for the tests; analysis of variance applied to teacher responses describing their principals.

Problem: To examine the relation between sex, teaching experience, college preparation and the five aspects of problem attack behavior covered in the PABI (problem recognition, problem analysis, use of group participation, administrative action, and administrative evaluation) of elementary school principals as perceived by their teachers.

Findings: Of the 30 principals, 21 were men, 9 were women. The women were similar in age to the men, but had had more experience and more college course work in education.

The teachers perceived the women principals as more likely to notice potential problems, especially teacher-student problems. They noticed no difference between men and women principals in analyzing problems and invoking group participation. Women appeared to take decisive action more often than did the men, and reviewed the results of their actions more frequently.

Greater experience in principals led to more frequent action, problem analysis, group action, evaluation, and recognition. More undergraduate course work seemed to have no influence on problem-attack behavior by principals. In fact, there appeared to be more action taken by principals who had somewhat less course work.

Experience, therefore, would seem to be a very important factor in problem-attack behavior in principals. In this sample, 67% of the men principals had had less than six years experience in elementary school teaching while 88% of the women had had six years or more experience. It also appears from the ratings of the women teachers that the women principals may be more sensitive to problems than are the men principals. College course work does not seem to improve analysis or action on problems, or to help in encouraging initiative.

A bibliography of 54 items is appended.

Hoyle, Jonn,"Who Shall be Principal--A Man or a Woman?," National Elementary School Principal, Vol. 48, No. 3, January 1969, pp. 23-24

Descriptors: Attitudes of Administrators, Elementary and Secondary School Principals, Elementary and Secondary School Teachers, Attitudes of Teachers

Type of material: Brief review of literature most closely related to the author's research, plus brief report of that research

Subject matter: Characteristics of principals, especially of women principals

Population: Sample drawn from elementary school teachers and principals in Texas.

Date: Review of literature published between 1956 and 1965, and brief report report of author's own study, data collected in 1966.

Method: See abstract of Hoyle, "Problem-Attack Behavior and Its Relationship to Sex...," dissertation, 1967.

Findings: Wiles; Grobman and Hines; and Hemphill, Griffiths and Fredericksen indicate the superior performance of women elementary school principals in democratic leadership ability, skill in working with groups, concern for learning, encouragement of pupil participation, and ratings by teachers and superiors. Barter found that teachers rated men and women principals as equal in ability and personal qualities, and report that men teachers who disapproved of women principals had never worked for a woman. Newell noted that women principals were more aware of cognitive learning processes, and McIntyre asserted that women administrators probably are superior, based on existing evidence. The author's research in suburban Texas asked 216 elementary school teachers to rate 21 male principals and 9 female principals on their abilities, using Randall's Problem-Attack Inventory, to deal with five problem situations that arise in the schools. Women administrators were described as superior in noting potential problems and in reviewing the results of action they had taken. Hoyle suggests that one of the reasons for women principals receiving better ratings by their teachers is because of their greater classroom experience, (two-thirds of the men had less than six years classroom experience, but 88% of the women had more than six years). In the other three areas, men and women scored equally.

Hoyle urges school boards and superintendents to consider active recruitment of women elementary school principals, since research demonstrates the ability of women administrators. He notes that the declining number of women administrators is attributable to sex discrimination and urges that personal qualifications and administrative skill rather than sex be the major determinant in hiring.

No bibliography is appended.

Jennings, James M., The Elementary School Principalship in Michigan, Michigan Association of Elementary School Principals, East Lansing, Michigan, March 1972, 36 pages

Descriptors: Elementary Education, Elementary and Secondary School Principals

Type of material: Survey report

Subject matter: Elementary school principalship in Michigan

Population: Sample drawn from full-time, supervising elementary school principals who were members of the Michigan Association of Elementary School Principals (MAESP).

Method: Members of the MAESP were sent a questionnaire to which 1,010 (86%) responded. The study and analysis were undertaken by the author rather than by MAESP which cooperated in the study and distributed the detailed abstract of the report.

No description of sampling or validation methodology is given.

Findings: Few data are reported by sex, but the report found that the percentage of women elementary school principals in Michigan has decreased over the past 20 years. The study found that 77% of the respondents were men, 23% women; and that the women were generally older than the men. It is speculated that increasing social and economic status of the principalship has made it more attractive to men.

It was also found that men principals tend to have more men teachers in their schools, and postulated that men may prefer not to work for women principals.

Other data available: Demographic description of sample by age, racial-ethnic group, residence, birthplace (fewer than a third come from out of state), marital status. Characteristics of district and school are given: number of schools is system, school enrollment, urban-suburban-rural situation, expenditure level per pupil, grade levels of schools, pupil-teacher ratios, and nature of parent groups.

Other sections on: experience, training and aspirations; working conditons--weeks worked, summer work, hours per week, and salaries; administrative-supervisory activities and attitudes.

No bibliography is appended.

Johnson, George E. and Stafford, Frank P., "The Earnings and Promotion of Women Faculty," American Economic Review, Vol. 64, No. 6, December 1974.

Descriptors: Salary Differentials, Doctorates, Fields of Specialty, Faculty

Type of Material: Analysis of data from National Science Foundation (NSF) Register, 1970 Census, other published research and analyses.

Subject: Impact of life cycle on Ph.D. cohorts

Population: Men and women Ph.D.'s in the fields of anthropology, biology, economics, mathematics, physics, and sociology, listed in the NSF Register.

Date: 1970

Method: Analysis conducted at University of Michigan in cooperation with American Association of University Professors on the basis of life cycle of the individual; major variables included were experience, quality of graduate school attended, citizenship and sex. Register data did not include information on marital status, children, or work history.

Findings: Data from the National Science Foundation (NSF) were used to examine the extent of the male/female salary and promotion differential for Ph.D. holders in academic employment by field of specialization. Based on life cycle training model, the differential between men and women is correspondingly the smallest at entry, ranging from about 1% in sociology to 11% in biology; the differential grows most rapidly from five to fifteen years, the years when child care is most prevalent; there is typically a narrowing of women's salary differentials at advanced years of postdegree experience. If women return to full-time employment after childrearing and reacquire skills, then the difference ceases to rise or even narrows as observed in the data.

Hypothesis: Women's earnings should be expected to diverge from those of men because of family obligations, and this can be shown for women faculty.

Human capital differences (skill/experience factor) and differential turnover rates (owing to women's home obligations) combine to be a sufficient condition for wage differentials to exist, even in the absence of intended discrimination by employers or coworkers.

At one typical university, starting salaries for women academics are only 3% lower than for males; the disadvantage grows to 20% at 15 years of reported experience, and then declines for higher levels of experience.

From the six fields it is clear that the percent of women in a field appears to be related to earning level. Mathematics, economics and physics have a lower percentage of women, and have salaries which are higher (and rise more steeply with experience) while biology and sociology have more women, and have lower salaries that rise more slowly with experience. The most important finding is that the academic salaries of women start out at not much less than those of men (4 to 11 percent less in the six disciplines in the sample) and then decline to result in a fairly substantial differential after a number of years of potential experience up to about age forty-five (13 to 23 percent at 15 years after the completion of the doctorate). In addition, women academics are more likely than men to be employed by institutions which emphasize teaching rather than research and graduate training. The two principal alternatives to account for the differences are that the sex differences in salaries reflect differences in acquired skill and productivity between men and women, or direct labor market discrimination against women by male-dominated university faculties and administrations. It is possible that the salary disadvantage of women is attributable to a combination of both of these factors. This study indicates that over a thirty-five year work life, roughly three-fifths of the wage disadvantage is attributable to human capital differences, two-fifths to discrimination.

A bibliography of 22 items is appended.

Kalamazoo Public Schools, Committee to Study Sex Discrimination. Report of the Personnel Task Force, Kalamazoo, Michigan, April 11, 1973

Descriptors: Administrative Personnel (Elementary and Secondary), Discriminatory Practices, Elementary and Secondary Education, Elementary and Secondary School Teachers, Sex Stereotypes

Type of material: Research study

Subject: Sex discrimination in Kalamazoo public schools

Population: Personnel of the Kalamazoo public school system

Date: Documents and records from 1970 to 1973 studies, plus questionnaire distributed May 1972, and interviews con ducted between April 1972 and February 1973.

Method: Questionnaires distributed to 1,215 school personnel, 509 returned of which 392 were relatively complete. Results, therefore, are not used to interpret depth or extent of concern, but to show areas in which concern was felt. Interviews were also conducted with administrators in the Division of Personnel, Food Services, Operation, Buildings and Grounds, and with teachers and students. Documents relating to personnel, administrative procedures, organizational plans, budget, and other administrative matters were reviewed.

Findings: Women were seriously underrepresented in administrative categories. In the highest categories (superintendent, assistant superintendents, principal and director of division) 26.5% were women; in the second category (assistant directors, assistant principals, and supervisory personnel) 13% were women; among other professional personnel (teachers, libraries, nurses, and others) 66% were women. The majority of women in all these groups are employed at the elementary level. Except for bus drivers (57% of whom are women) all other job categories reflect sex stereotyping: office employees and cafeteria workers are 99% women; 86% of teacher's aides are women; instructors of apprentices and those in skilled trades are 100% men. The Division of Personnel responsible for the affirmative action program consists of three male administrators and three female secretaries.

There is little evidence of awareness among administrators of attitudes that would support affirmative action; many respond with stereotypes about women's disabilities as administrators and other supervisory positions. Job application blanks, job descriptions, and contracts reflect sex stereotypes. Women are rarely represented on committees that act or advise on hiring and policy.

The majority of respondents said they were not aware of unfair treatment on basis of sex. Those who were aware noticed discrimination in assignment of certain duties and in selection of department heads. (Men, too, noted some reverse discrimination: that women are often not given the more strenous assignments or those involving discipline problems.)

Salary schedules reported by sex were not available, but it was noted that women assistant principals with more years of experience than men assistant principals, were earning slightly lower salaries. It was also noted that compensation for coaching in athletics was higher for men and that there were more such positions for men, suggesting not only that women receive less compensation but that girl students receive less, and less varied, services. Compensation for extracurricular athletic activities was higher than for extracurricular academic activities..

Maternity benefits appeared to be equitably alloted, but not equitable in amounts paid. Retirement benefits are pegged to time served and pay received and thus reflect, inequities in women's past salaries, promotions, or leaves.

Selection for training and leaves for professional activities are related to the decisions of the (primarily male) administrators.

No bibliography, a list of 16 documents studied is appended.

King, Elizabeth C., "Perceptions of Female Vocational Faculty Members as Seen by Themselves and College Administrators," Pennsylvania State University, University Park, Pa., August 1974, 150 pages.

Descriptors: Attitudes of Administrators, Employment Opportunities, Faculty, Vocational Education Staff, Community Colleges

Type of material: Research study

Subject matter: Career possibilities of women vocational education faculty

Population: Samples drawn from two groups: presidents of public community colleges and women vocational faculty at public community colleges.

Date: Questionnaires sent and followups made between November 1973 and January 1974

Method: Of a universe of 850 community college presidents, 350 were chosen by random sampling; 297 (83%) returned usable questionnaires. Of the entire population approximately 10,000 women vocational faculty, a sample of 500 was randomly selected; 74% returned usable questionnaires.

The college presidents were sent an explanatory letter and the Equalitarian Perception Scale (EPS); the faculty women were sent the EPS and a brief demographic data questionnaire.

Analysis included the Likert Attitude Scale Analysis, multiple regression analysis, and the Behrens Fisher Test t.

Major variables: Perceptions of community college presidents and of women vocational education faculty of 25 items of the EPS. Demographic description of women faculty.

Findings: Most of the administrators (all of whom were male) agreed that women faculty experience some conflict between their roles as women and professionals. There were inconsistencies in their perceptions of advancement possibilities for women vocational faculty at their institutions; they were likely to respond that women could compete successfully with men at their institutions but felt that women were not as likely to achieve leadership positions. They felt their women faculty had moderately high career aspirations. The most experienced administrators were less likely to feel that intellectual achievement in women seems aggressive, and more likely to feel that professional women can expect to have a lifelong career, but they also feel that children are a liability for professional women.

The women were ambivalent concerning their dual roles; they perceived their chances for advancement as poor, and they generally had low career expectations. The author comments that her study does not support the contention that the traditional role and responsibility of career women is undergoing dramatic change; these women still bear the major responsibility for home and child-care duties. She finds it difficult to arrive at any firm conclusions about aspirations, and is inclined to think that apparent lack of career aspirations may come, not so much from "fear of success," as from perceived lack of advancement possibilities.

A brief demographic description of the women faculty is included.

A bibliography of 97 items is appended.

Kistiakowsky, Vera, "Women in Engineering, Medicine, and Science," A demographic paper prepared for the Conference on Women in Science and Engineering, National Research Council, June 11-12, 1973, Washington, D.C., 1973.

Descriptors: Hiring and Promotion Practices, Salaries, Postsecondary Education

Type of material: Compilation of records of various agencies and professional organizations

Subject: Status of professional women in engineering, medicine, and science

Population: Professional women in the sciences as surveyed by various professional organizations and agencies.

Date: Records, rosters, and statistics gathered, for the most part, between 1970 and 1973.

Findings: One of the central issues of affirmative action is the identification of a pool of qualified candidates. There is considerable information on women active in various fields, though the data are not equally good in all areas. The simple statistics do not indicate qualifications exactly since women are underrepresented in professional fields for other reasons than ability.

In 1971, women comprised 0.5% of all engineers, up from a low of 0.3% in the 1950's. Projected trends indicated a fourfold increase of women engineers from 1972 to 1981. Most women in engineering work in business and industry; few in the upper levels of management.

In 1969, women were 6.7% of active physicians, and about one-third were educated outside the United States. Their main specialty is pediatrics; fewer are clinicians or surgeons.

In the period from 1930 to 1969, about 5% of Ph.D.'s in the physical sciences were awarded to women, about 11% in the life sciences, and 13% in the social sciences. The majority of women scientists (54%) work in an educational setting. In colleges and universities, women scientists are least likely to be employed as full or associate professors, most likely to be working as instructors or lecturers, or in non-teaching research posts.

Increases in percentages of women are seen at the lower ranks of college and university faculties, but the visible pattern is still "very largely a legacy of the past."

> "Since the women degree recipients are a group whose pre-selection criteria are different from those of men, it is not correct to assume that the percentages qualified for various positions are the same as the equivalent percentages for men. For present purposes then, a better assumption is that the number of women degree recipients in the group from which candidates for a given position would be drawn is approximately the total number in the sample."

It should also be kept in mind that:

> "because of the different career patterns, other women who are also qualified...might be found in un-tenured or non-faculty positions or at less prestigious institutions. Therefore the actual number of women in the "pool" from which nominees for the positions could be drawn should be increased to include the number of individuals in these other categories. It is obvious that there will also be men at less prestigious institutions who are equally qualified with others at top ranking institutions."

A list of 24 references is appended.

Klotzburger, Katherine M., "Advisory Committee Role in Constructing Affirmative Action Program," Women in Higher Education, Furniss, W., and Graham, P., eds., American Council on Education, Washington, D.C., 1974, pp. 229-233.

Descriptors: Affirmative Action, Postsecondary Education, Fields of Specialization

Type of material: Description of the establishment and role of an advisory committee in the construction of an affirmative action plan by the special assistant to the Chancellor and Project Director of the Chancellor's Advisory Committee on the Status of Women at the City University of New York.

The City University of New York (CUNY) created an Ad Hoc Advisory Committee on the Status of Women in 1971 to give particular attention to the University's formulation of an affirmative action plan. The Committee decided to begin by carrying out a statistical investigation and employed a research staff to collect and analyze data and to design a program that would make periodic updating comparatively easy. The data were characterized by job category, rank, department, college, and type of college within the system (there are 20 schools in the CUNY organization). The information was then compared to availability data--on the basis of which goals and timetables were set.

Examining the conditions of the "women's fields" they found, for example, that the departments of nursing were assigned fewer upper-rank faculty. Of those receiving doctorates from CUNY in 1967, 29% were employed by one of the CUNY colleges, and of these slightly more women than men had been placed. However, no information was given on rank or availability at time of hiring, so the information had limited significance. There are still gaps in the data to be furnished, but the committee hopes to receive it without having to invoke sanctions.

The author emphasizes the need for a sound data base when developing an affirmative action plan.

No bibliography appended.

Koontz, Elizabeth D., "Childbirth and Childrearing Leave: Job-Related Benefits," unpublished manuscript, undated, 55 pp.

Descriptors: Fringe Benefits, Women's Life Patterns, Women's Working Patterns

Type of material: Commentary, and citations of examples, by the Director of the Women's Bureau, U.S. Department of Labor, and former President of the National Education Association.

Discussion: Maternity leave has been variously defined and variously offered (or required). Leaves for long periods are based on outmoded notions of the length of time women need for childbearing and recovery. Most persons concerned with women's rights believe that maternity leave should include the right to reemployment without loss of seniority. The Citizens' Advisory Council on the Status of Women feel there is no point in requiring women to take leave while they are able to work. The Council also believe that childbirth and the complications of pregnancy are temporary disabilities like any others and should be so treated under insurance plans.

State laws vary; some prohibit employing women in certain industries before and after childbearing, and such laws do not usually provide for employment security. In 1942 Rhode Island was the first state to adopt a compulsory temporary disability program and included pregnancy as such a disability. It did not, however, restrict coverage to the actual period of disability but based coverage on the existence of the condition of pregnancy. This proved so expensive that later plans excluded pregnancy. In 38 states pregnancy is disqualified under unemployment insurance laws. Although the Department of Labor has urged the elimination of discriminatory practices, the results appear to be negligible.

The Office of Federal Contract Compliance guidelines state that a woman should be reinstated after childbearing without loss if she returns in a "reasonable time." The Equal Employment Opportunity Commission states as a principle that women should be offered leaves with rights to reinstatement; it has also appeared as amicus curiae stating that forcing a woman to resign after a certain month of pregnancy violates Title VII of the Civil Rights Act of 1964. Nor can an employer restrict leaves and benefits only to an employed head of household, or to wives of male employees, or the employees only after two years of employment.

The AFL-CIO passed a 1969 resolution supporting "adequate maternity leaves and benefits." The UAW states that most of its contracts provide for six weeks temporary disability insurance coverage for childbearing.

Women's advisory committees to government agencies recommend that, for employment purposes, childbirth be regarded as a temporary disability. They recommend that it not be called a "normal physical condition" as it requires hospitalization and can entail danger to life. They also recommend it not be called a voluntary condition as this is not necessarily the case (and "voluntary" disabilities such as accidents while drunk are covered under disability insurance). As to length of leave required, that should be determined by the woman and her doctor.

Childrearing leave is a new idea. This could apply to fathers as well as mothers and has, as precedent, the usage of giving unpaid educational and emergency leaves.

Urging alone will not change policy; women's groups and others will have to force changes through the courts and by pressure on legislatures, school boards, and employers.

A list of 42 references is given.

LaSorte, Michael A., "Academic Women's Salaries: Equal Pay for Equal Work?" Journal of Higher Education, Vol. 42, No. 4, April 1971, pp. 265-278.

Descriptors: Postsecondary Education, Salaries, Discriminatory Practices

Type of Material: Research report

Subject: Sex differentials in academic salaries

Population: Sample drawn from academic scientists submitting questionnaires to the 1968 National Register of Scientific and Technical Personnel

Date: Academic year 1967-68

Method: From 298,000 scientists submitting questionnaires to the Register, a sample of 17,946 were selected on basis of criteria: teaching full time at colleges and universities, received a basic annual salary by academic year (9 to 10 months), in five fields--chemistry, mathematics, biological sciences, psychology and sociology; 15,135 were men, 2,811 were women. Professions with less than 200 women reporting were excluded as were teachers below instructor rank or below master's degree level.

Data from academic years 1959-60, 1962-63, 1963-64 and 1965-66 were culled from previously published material and used for comparison.

Findings: In an effort to determine whether substantial and persisting salary inequities among women academics are the result of sex discrimination or are partly or wholly attributable to other factors, LaSorte makes detailed comparisons based upon professional attributes common to both sexes. The finding of large salary gaps which suggest that women are being treated unfairly is qualified by the author's claim that salary levels involve complex series of decisions both on the part of the institution and the individual. Comparing median salaries by sex and academic rank for the 1967-68 academic year with samples of academic teachers from four prior academic years, the author found no compelling evidence that the sex-salary differential decreased during the 1960's. A second part of the analysis focused on the 1967-68 sample. With academic rank controlled, the author introduced the variables of academic degree, second work activity, geographic region, years of professional experience, profession, and age in order to identify in what sub-groups the salary gap persists.

Women teachers upon entering academia initially encounter a small salary inequity which increases in size with the acquisition of high rank, tenure, and professional experience. Accordingly, the most academically qualified women over time fall progressively further behind in salary. Inequities are particularly noticeable among full professors and particularly those who only teach or who teach and do research. These constitute the bulk of professors on the faculty. Several reasons are given to justify lower salaries; women constitute a larger proportion of faculties in institutions with lower median salaries; women are viewed as having lower research productivity, and a lack of genuine and full-time professional commitment due to marriage and family responsibilities. Recent studies question these contentions and tend to show that women are fully represented as committee members and office holders in their respective organizations, receive more fellowships than men, and are more likely to be members of honorary societies. None, however, are as visible as men in their institutions, professions or in the outside communities. The only way to eliminate all discrimination on the part of the institutions and society would be a salary system based entirely on the seniority removing the criterion of merit considered essential in the academic world.

Eleven references are given.

Leppaluoto, Jean R., "Attitude Change and Sex Discrimination: The Crunch Hypothesis," paper presented before the Western Psychological Association, Portland, Oregon, 1972. ERIC document, 1972, 11 pages.

Descriptors: Attitudes of Administrators, Sex Stereotypes, Fringe Benefits, Anti-Nepotism Policies

Type of Material: Literature survey

Subject: Attitude change with regard to sex descrimination

Date: Argument based on studies done from 1960 to 1972.

Method: Application of attitude research to the problems of sex discrimination.

Conclusions: Experimental evidence supports the theory that attitude change tends to follow modification of behavior, so that behavior and attitudes become congruent. It is still true that "sex discrimination is the last socially acceptable prejudice"; administrator's attitudes should begin to undergo a beneficial change when women present them with formal complaints of discrimination and demands for correction of inequitable policies. Changes are not being sought in the following areas: an end to nepotism practices that tend to decrease wives' opportunities; the establishment of appropriate grievance procedures; the revision of tenure rules to include part-time teaching; the establishment of child care facilities; the equalization of fringe benefits; the establishment of fair maternity leave policies; the equalization of full and part-time salary levels; open admission policies for women in co-educational institutions; unisex student rules; and policies to encourage older women to return to school. The increased activism of academic women, coupled with threats to withhold federal funds from discriminatory institutions, will, in the author's view, create the "crunch" for administrators that will break down sexist stereotypes and end discriminatory policies.

A Bibliography of 8 items appended.

Lester, Richard A., The Carnegie Commission on Higher Education, *Antibias Regulation of Universities*, McGraw-Hill Book Company, New York, N.Y., 1974.

Descriptors: Affirmative Action, Hiring and Promotion Practices, Faculty

Type of Material: Commentary, secondary analysis ACE survey 1968-9 and 1972-3, and informal research study

Subject: Problems posed to universities by affirmative action procedures

Population: American institutions of higher education, with emphasis on the "three or four dozen" elite universities.

Date: Material gathered 1973-74.

Method: Richard A. Lester, vice-chairman of the President's Commission on the Status of Women (1961-63), Dean of the Faculty of Princeton University (1968-73), and chairman of Princeton's Equal Employment Opportunity Committee (1968-72) draws upon his experience as a university administrator, discussions with administrators and faculty in some 20 elite universities in the U.S., and with U.S. Department of Health, Education, and Welfare compliance officers in Washington, D.C., and in regional offices. To maintain anonymity, specific quotations are not given. The author also uses findings from other research studies, especially the American Council on Education studies of college and university faculties (see Bayer, Alan E., *College and University Faculty*, 1970, and *Teaching Faculty in Academe*, 1973).

Findings and discussion: Academic freedom and the high degree of independence exercised by university faculties is essential to American universities. Recruiting a distinguished faculty of scholar-teachers cannot be a mechanistic job. Choice of faculty depends on many factors: teaching and intellectual ability, approach, leadership and administrative talents, philosophy and culture, and other qualities of a candidate. The most distinguished teacher-scholars are not on the market but must be competed for; the number of senior hires and promotions to tenured posts is small compared to hirings at lower levels.

"Discrimination in employment pervades all advanced society," for judgments are complex and difficult to describe. Sex discrimination may occur at supply level (at admission to graduate school, for example) as well as at demand level (decision to hire or not to hire). Much of women's problems at both levels is caused by their interrupted careers, the effect of competing demands of career and family-child care responsibilities; loss of time and loss of touch with developments in academic field militate against women's success in the academic professions. In the universities which are staffed six to one by men, "faculty personnel policies could be expected to be oriented toward normal career patterns of males..." Women's failure to reach high-level posts is shown in statistics from other nations as well as our own.

Differences in salary between men and women shown in regression analyses often relate to the effects of factors that cannot be quantified but are of great importance. For instance, the interest of women in teaching rather than research, the likelihood that interruptions in career will have interfered with the development of expertise and contact with new developments in special fields.

Laws, regulations and guidelines relating to elimination of discrimination against women and minorities at universities can intrude upon complex evaluation and hiring procedures, lead to inflated goals for hiring women and minorities, and to preferential hiring which is itself in violation of the Civil Rights Act of 1964. That there has been some inequality in rewards to women and minorities has put university administrators in a weak position to resist pressure.

The author suggests the development of an independent mediating agency of skilled persons with university administrative and faculty experience; accurate reporting of new hires and the composition of faculties by sex and minority group so that HEW may study problems from a background of solid data; and a stress on redressing inequalities by expanding the limited supply (especially at doctoral and postdoctoral levels) of qualified women and minority members.

A bibliography of 55 items is appended.

Levine, Adeline, and Crumrine, Janice, "Women and the Fear of Success; A Problem in Replication," Paper presented at the American Sociological Association meeting, New York, N.Y., August 1973, 19 pp.

Descriptors: Fear of Success, Sex Roles

Type of Material: Research study

Subject: Problem of the validity of the fear of success concept

Population: Sample drawn from undergraduate students at State University of New York, Buffalo

Date: October 1971

Method: 700 undergraduate students enrolled in five sociology courses (335 women, 365 men). Subjects given the story cue used by Horner, in one of two forms...the success of "Anne" or that of "John." (175 women and 178 men wrote "John" stories; 160 women and 187 men wrote "Anne" stories.) Three scorers worked to point of agreement measured by Kendall's coefficient of concordance W= .8.

Hypotheses: Based on the Horner "fear of success" motive, it was hypothesized that more "Anne" stories than "John" stories would show negative attitudes; more "Anne" stories would have high precentages of negative statements; more "Anne" stories would deny the story cue; and more "Anne" stories would have a pessimistic tone.

Findings: Most stories (both for "Anne" and "John") had at least one negative statement and there was little difference by sex of respondent. The majority of stories from both men and women had less than 50% negative sentences; more men wrote denial stories --men were twice as likely to write denial stories regarding "Anne" than were the women. The tone of the women's stories was less pessimistic than was that of the men's stories.

The women were less negative toward "Anne" than toward "John." The men were similarly negative toward both "Anne" and "John," but used more denial themes toward "Anne" than toward "John."

Changes in attitudes may be taking place, and men may be less confident, more prone to anxiety than when Horner began her studies. Nevertheless, the findings of the authors do not support Horner's hypotheses.

A list of 22 references is appended.

Lexington, Massachusetts, Citizens' Advisory Committee on Educational Opportunities for Girls and Boys, "Sex Inequality in Lexington's Public Schools," Lexington, Mass., January 17, 1975, pp. 62.

Descriptors: Administrative Personnel (Elementary and Secondary), Discriminatory Practices, Elementary and Secondary School Teachers

Type of Material: Research study

Subject: Sex discrimination in the Lexington Public Schools

Population: Personnel of the Lexington School District

Date: School year 1973-74

Method: Visits to schools and administrative offices; letters, and telephone and personal interviews; questionnaires (sample or selection methods not given); observation of classes; examination of computer printouts, books, and other materials.

Findings: Women outnumber men among the full-time professional personnel (373 of 590 positions) yet play a minor role in administration (of nine upper administrative positions, only one is held by a woman). At elementary level, all but two principals are men; at secondary level all principals and assistant principals are men. In the high schools men head 9 of 11 departments; in the junior high, men head 12 of the 15 departments. Men head the extension, guidance, and instructional materials services. The curriculum committees are usually chaired by men, and, in general, decisionmaking roles are held by men.

On the average, mens' salaries exceed those of women (among the professional personnel) by $3,000. Men are promoted more often and more quickly than women. Men are, however, likely to have more academic credentials: 28% of the men compared to 10% of the women had the master's degrees plus 30 credits.

Other sections of the report include analyses of the physical education and sports programs, course offerings (and sex-stereotyping of courses), instructional materials, and counseling and guidance services.

Recommendations: Laws on sex discrimination should be reviewed, more complete data should be collected, and steps taken toward corrective action. In-service training and workshops could increase awareness of sex discrimination and help in planning to avoid it. Effort should be made to place more women in policymaking positions, to collect data on the qualifications of all professional staff, to see that women are equally represented on screening committees, and that all staff are regularly surveyed to determine interest in administrative work. Staff should be encouraged to seek nontraditional roles in the school system. All policies (hiring, benefits, and committee appointments) should be reviewed to make sure they do not perpetuate imbalances.

Recommendations are also made for school sports and curriculum policies.

A bibliography of 103 items is appended.

Liss, Lora, "A Case Study of Academic Women's Misperceptions: Implications for Affirmative Action," (mimeographed), Lehigh University, Bethlehem, Pa., December 1974, 23 pages.

Descriptors: Affirmative Action, Faculty

Type of material: Survey research

Subject matter: Perception of sex discrimination

Population: Women faculty at a large northeastern metropolitan university

Date: Not stated

Method: Author and trained interviewers interviewed full-time women faculty: 78% of about 100 women faculty (from a total faculty of about 500), were interviewed.

In the light of proven discriminatory practices, why do well-educated women accept their "place" in the academic heirarchy? What are the implications of this attitude for affirmative action goals? The study, therefore, focussed on the gap between the women's perceptions and the objective data.

Major variables: Academic status of respondents, areas in which discrimination may be perceived, degree of discrimination perceived.

Findings: Most women (41%) perceived little or no discrimination; 33% felt a moderate degree; only 26% perceived a high degree of discrimination--in spite of the very discriminatory record of the school. Women barely perceived the dramatic differences, and even the high perceivers of discrimination were not fully aware of the extent of the data supporting their beliefs.

Most of the women had to fight for promotion and tenure; they were not likely to expect committee posts but felt more women should serve on committees because they have much to offer. They appeared not to realize that committee service is often used to evaluate faculty, so their scarcity on committees does not serve them well. They were quite sure they were given less secretarial help, being expected, as women, to know how to type.

The most clear-cut patterns of discrimination reported related to marital status, with the demands of family care on the one hand and the skepticism of their colleagues on the other. They tended to discount sex in the choice of a field of specialization, yet those in "masculine" fields took pride in having met the challenges and those in "feminine" fields felt protected by their majority.

The higher ranking women were more likely to perceive discrimination; this confirms other findings that at lower institutional levels there is less perception of disadvantage. Another reason for reluctance to acknowledge low status is that the qualities of excellence and scholarship are supposed to be the standards of merit and, therefore, of status. A third reason is simply that the women do know the facts. A fourth is that women are well-schooled in appropriate social sexual deference--and often find that if they rebel (even successfully), their careers are jeopardized.

It is important to realize in designing remedies, that women can be reluctant to recognize their low status and to apply the pressures available to them under the new regulations. Strong social networks among women who are aware of affirmative action requirements may help in achieving these goals.

A bibliography of 13 items is appended.

Lockheed, Marlaine E., *Female Motive to Avoid Success: A Psychological Barrier or a Response to Deviancy?* Educational Testing Service, Princeton. N.J., December 18, 1974. 18 pp.

Descriptors: Fear of Success, Sex Stereotypes

Type of Material: Research study

Subject: The motive to avoid success in women

Population: Sample drawn from undergraduate college students

Date: not stated

Method: Sophomores in sociology classes at two small western colleges participated: 77 from a private college, 192 from a public college; 154 were men and 115 women, total 269.

A modified replication of Horner's studies; the story cue for approximately half the sample stated that "Anne" was the only woman in the medical school class, for the other half that about 50% of the class were women. Both men and women subjects were asked to write stories about the woman "Anne."

Findings: The motive to avoid success, a psychological explanation introduced by Horner in 1968 to account for the observed failure of white women to achieve in American society has produced a plethora of subsequent research. New research indicates that males tend to be less favorably disposed to female achievement than to male achievement. Burger and Luckman argue that response depends on the social definition given to success. They argue that women attending medical schools are considered deviant and are hence subject social control. Both males and females engagine in institutionalized behavior will receive fewer sanctions than will persons engaged in the same behavior if it is considered deviant. Following this approach, Horner's experiment was repeated, describing the situation as both institutionalized (50 percent of the medical school class were women) and deviant (no other women in the class). The incidence of"fear" on the part of women is substantially less than reported by Horner. For the men, there is substantial difference in their response dependont on the cue contents. When behavior is described as deviant, twice as manymen as women describe "failure themes, but twice as many women's reports contain pure "success" themes. When behavior was institutionalized, the only difference between male and female respondents was that some men still attributed the women's success to her use of sex, and fewer of the men made such attributions when writing about the nondeviant women.

Conclusion: While men report unaccepting attitudes toward successful women, these attitudes are subject to influence by the environment in which success take place. If it is an environment in which women are as successful as men, men tend to react favorable to the success. When the success is deviant, men react punitively. The success of the women is not the issue so much as the diviant nature of her actions. Thus, the fact that achieving women have reacted to avoid success may be explained by the hostile reactions of men to such achievement.

On the other hand, women have developed new social definitions of appropriate behavior for women. That men reveal less antipathy for female success when the behavior is depicted as appropriate is a powerful argument for rapid modification of existing male institutions to permit the equal participation of both sexes.

A bibliography of 25 items is appended.

Loeb, Jane W., and Ferber, Marrianne A., "Representation, Performance and Status of Women on the Faculty at the Urbana-Champaign Campus of the University of Illinois," Academic Women on the Move, eds. Rossi, A., and Calderwood, A., The Russell Sage Foundation, New York, New York, 1973, pp. 239-254.

Descriptors: Faculty, Salaries, Affirmative Action, Discriminatory Practices, Productivity

Type of Material: Case Study

Subject: Representation, rank and salary of women faculty and administrators ar Urbana-Champaign Campus of University of Illinois

Population: Faculty and administration at University of Illinois' Urbana-Champaign campus

Studies drawn upon (and their dates): Carey, Robert C., 1969. A study of academic salaries at the University of Illinois, men compared with women. Part II: Fall 1968 salary. Urbana, Illinois: University Bureau of Institutional Research.

Ferber, Marrianne A., and Loeb, Jane W., 1972. Professors: Productivity and rewards. Champaign, Illinois: University of Illinois.

Katz, David A., 1971. The determinants of faculty salaries and rates of promotion at a large university. Ph.D. dissertation, University of Illinois, Urbana.

Tousey, Walter C., 1970. Females at the Urbana campus of the University of Illinois. Urbana, Illinois: Office of Administrative Studies.

Method: Case study approach summarizing data bearing on the extent to which the Urbana-Champaign campus of the University of Illinois has complied with affirmative action guidelines. Draws on several reports compiled from University records.

Data Available: University of Illinois, Urbana-Champaign Campus, representation of women on faculty and in administration, faculty rank and salary by sex; productivity, teaching effectiveness, professional experience by sex.

Findings and Recommendations: The University of Illinois case study of compliance is presented as an example of methods that should be applicable to other colleges and universities which might find it helpful in setting up similar studies.

It was found that women were underrepresented in the administration, on the faculty, and on committees. The mean salary of women based on a value system of experience and merit was unjustifiably lower than men's. The article suggests that future investigations should include information concerning offers of advancement by institutions other than the present employer. The extent to which outside offers influence salary is felt to be useful information.

A comparison of the productivity of men and women faculty indicated that there is little difference between the sexes either in publication or in prior professional experience. Thus, failure to recruit women as actively as men cannot readily be justified.

A bibliography of 7 references is appended.

Loeb, Jane, and Ferber, M. "Sex as Predictive of Salary and Status on a University Faculty," Journal of Educational Measurement, Vol 8, No. 4, Winter, 1971, pp. 235-243.

Descriptors: Postsecondary Faculty, Academic Rank, Salaries

Type of Material: Research study

Population: Sample drawn from faculty at University of Illinois (Urbana-Champaign)

Date: Data pertain to academic years 1968-69 and 1969-70; questionnaires distributed spring 1970

Method: Questionnaires sent 186 women faculty holding rank of instructor or above and to a sample of men matched to them on department and rank. (The women represent about half the women at rank at the university and the full number for whom a matching male faculty member was available). Responses obtained from 278 (75%) subjects.

Information requested included: department, rank, years spent at rank, highest degree, date and institution of degree, sex, number of publications, years of experience, professional honors, contract basis (9 or 11 months per year), full- or part-time status, and salary.

Two multiple regression equations were computed for each criterion. In the first, indices of merit, experience and sex were used as predictors of the criterion; in the second, by means of a stepwise multiple correlation procedures, terms representing the interaction of sex and each of the indices were allowed to enter the equation as additional variables in terms of their predictive power.

Variables: Predictors were salary for individuals of subject's rank and department, years at rank, highest degree, type of appointment, experience, publications, and honors. A weighting system for rank (based on years at each level) was derived.

Findings: The relatively low rank and pay which academic women receive are frequently attributed to fewer publications and less professional experience. After both of these factors had been taken into account, differentials in salary and rank related to sex were still found. Inequality exists in the reward system itself, advancing men at a greater rate than women. Both on the basis of publications and number of years at rank, more salary dollars are predicted for men than for women. Among those not publishing, the sexes are about equal in pay when they first enter a rank, but after 5 years there appears a discrepancy of $800 between men and women. Based on the study findings, sex itself did not add to the prediction of rank. However, the predicted rank of a male with one book is one-tenth of a rank beyond that of a woman author. Advancement in rank by sex appears to be more closely related to productivity than is advancement in salary.

Three references are listed.

Lyon, Catherine D., and Saario, T., "Women in Public Education: Sexual Discrimination in Promotions," Phi Delta Kappan, Vol. 55, No. 2, October 1973, pp. 120-123.

Descriptors: Administrative Personnel (Elementary and Secondary), Elementary and Secondary Education, Hiring and Promotion Practices

Type of material: Brief literature review plus small research study.

Subject: Women in administrative positions in public schools

Population: Administrative women in school systems of New York, Maine, Michigan, and Indiana

Date: Data pertain to the school years 1970-71, 1971-72, and 1972-73.

Method: Data obtained from State Departments of Education; methods not detailed.

Findings: The scarcity of women in administrative positions in public education is a problem of differential advancement for men and women within the ranks, and not a problem of entry. A national survey in 1970-71 concluded that while 67 percent of all public school teachers were women, only 15 percent of principals and 0.6 percent of superintendents were women, with most women administrators concentrated in the elementary schools. An examination of data for several states revealed a consistently low level of participation for women in administrative positions. Data are not uniformly available for women who hold administrative credentials but are not currently so employed. The authors examined the two routes to advancement to administrative positions--advancement through the ranks, and graduate work in educational administration with a return to the system at a higher entry point. They concluded that women are not even moderately well represented in educational administration graduate programs nor in financial aid programs, and thus have not gained equal access to either route. Recent efforts by selected universities have increased women's participation in graduate programs of educational administration.

Recommendations: Increase the number of women professors teaching educational administration; public identification of discrimination against women in promotions to administrative positions should be an organizational priority; make active searches for female applicants; analyse personnel policies and educational policies and programs designed to encourage women's advancement; adopt affirmative action plans; and examine alternative means for certification of school administrators.

A list of 14 references is given.

McIntyre, Kenneth E., "The Selection of Elementary School Principals," The National Elementary Principal, Vol. 44, No. 5, April 1965. pp. 42-47.

Descriptors: Administrative Personnel (Elementary and Secondary), Admission Policies

Type of material: Commentary by a professor of education administration at University of Texas, Austin.

Findings: Research has given little attention to the processes by which teachers gain the visibility that leads to promotion to the principalship; in fact one study has shown how an informal system has developed to circumvent the formal procedures. (An important device was "GASing:" Getting Attention of Superiors.) Better methods are needed to locate promising candidates for the principalship.

A discouraging tendency is to disqualify a large population of qualified people: women. Women generally do very well in teacher education programs; research shows they are likely to be good (even better-than-average) principals, and there is no sound basis for the argument that women teachers will not work with a woman principal. Women principals have much teaching experience--perhaps spending so much years in the classroom that contributions that might have been made to the principaleship are lost. Recruitment should be easier if there were better prospects for moving into administration in a reasonably short time.

No bibliography appended.

Magestro, James, The Wisconsin Elementary School Principal, A Status Study-1973, Educational Studies and Scholarship Committee, Wisconsin Elementary School Principal's Association, Madison, Wisconsin, September 1973. 98 pp.

Descriptors: Elementary and Secondary School Principals

Type of Material: Statistical Study

Subject: Elementary school principals--personal characteristics and professional responsibilities

Population: Elementary school principals in the Wisconsin Public School System

Date Questionnaires mailed November 1972

Method: Questionnaires mailed to all elementary school principals listed with the Wisconsin Department of Public Instruction; of 1,075 principals, 787 or 73.2% responded.

Data Available: Characteristics of the subjects by size of their school district; by sex, age, experience, degrees earned, administrative duties, salaries and basis for salary, and fringe benefits.

Findings: Women are most often principals of the smaller schools. The length of time as an elementary school principal does not differ substantially between men and women. Two-thirds of the boards of education require no college work beyond the master's degree, and there is no differentiation by sex in the amount of education. Women comprise 11% of the elementary school principals, and the percentage of women has been significantly declining during the past decade. Only 8% of women principals are age 40 or less, while 37% of the men principals are, suggesting that women are not being appointed to new openings as they become available. There are more women at either end of the salary spectrum. Median salaries of men and women are virtually the same. Almost two-thirds of the women principals are in schools of less than 20 teachers; furthermore, women are more apt to be teaching principals than men.

Conclusion: The unchecked decline in percentage of women in the principalship, both nationally and state-wide, is inexcusable since there are no data available which indicate that men make better school principals than women. This is inconsistent with the Wisconsin Affirmative Action Program and with the current equal rights movement.

No bibliography appended...

Martin, Ann M., and Martin, A.G.,"Educating Women for Identity in Work," American Vocational Journal, May 1971, pp. 38-41

Descriptors: Career Choice, Sex Stereotypes

Type of material: Commentary by an assistant professor at Indiana State University engaged in research in educational material for vocational guidance of girls.

Findings: Extremist positions with regard to women's status would either blur sex distinctions so as to make them virtually nonexistent or insist on the woman's role as childbearer and housekeeper. To build a bridge between them, major changes are needed in the educational system. Sex-typing of jobs assumes sex differences in aptitudes which have not been proven. For instance, girls and boys make similar grades in mathematics through grade nine as long as all are given the same training. When math becomes an elective subject, the boys are more likely to choose it and by grade twelve show great superiority in grades.

Girls are conditioned to think of themselves in terms of their relationship to men rather than to their own interests or careers. Since work is not a primary consideration for them, they are likely to choose jobs that make fewer demands and have less interest. They should not be made to feel guilt in accepting a value system previously reserved for men, and should, therefore, be educated to value their own identities and to express them in work goals.

No bibliography is appended.

Mason, Ward S., Dressel, Robert J., and Bain, Robert K., "Sex Role and the Career Orientation of Beginning Teachers," Harvard Educational Review, Vol. 29, No. 4, Fall 1959, pp. 370-383.

Descriptors: Career Choice, Elementary and Secondary Teachers, Sex Role

Type of Material: Research study

Subject: Career attitudes of beginning teachers, by sex

Population: Sample selected from all beginning teachers in United States public schools

Date: Questionnaires sent Spring 1957

Method: A two-stage 10% probability sample: sample of all public school districts having schools with any of the grades, kindergarten through 12th, stratified by enrollment, asked for names of beginning teachers (teachers who had no full-time paid work for a full term prior to the school year 1946-47). The teachers then sampled (rates varying by stratum but so as to yield 10% per district). Replies totaled 89% (N=7,150), estimated to comprise 84% of beginning teachers (estimates required because a few districts did not respond).

Findings: A minority of either sex (29% of men, 16% of women) expected to teach without interruption until retirement. Women expected to interrupt career for homemaking (70%--though 58% hoped to return to teaching after home responsibilities lessened). Men expected to stay in education, but not in teaching (51%). Women were most likely to assume they would leave teaching for reasons extrinsic to the profession (80%--dependent on family or other persons), men because of reasons intrinsic to the profession (earning power--50%, working conditions, personal satisfaction--17%).

Teachers were much more likely than a general group of university students to value work with people and helpfulness as satisfying aspects of their profession. These values are considered "feminine" and are mentioned by more women than men, but by more teachers (of either sex) than by students (of either sex).

In general, teachers do not appear to be keeply committed to teaching as a career; the women expect to drop out for family considerations (sex-role related reason) and the men to leave teaching for administrative work in education. Administrators who wish to retain their teaching staffs must make teaching more rewarding for the men and reduce the conflict between work and family responsibilities for the women.

A list of 21 references is given.

Miner, Anne S., Academic Employment of Women at Stanford, A Report to the President of Stanford University, Stanford, California, November 15, 1971, 43 pages.

Descriptors: Administrative Personnel (Postsecondary), Faculty, Postsecondary Education

Type of Material: Research study

Subject: Status of academic women at Stanford

Population: All women employees at Stanford, with emphasis on women with academic appointments

Date: Current data pertain to the academic years 1969-70 and 1970-71

Method: Not detailed; included interviews and examination of institutional records and reports

Findings: The purpose of this special study was to review and analyze the status of women at all levels of employment at Stanford University. Women are underrepresented in both administration and faculty. In 1971, there were 47 women as opposed to 988 men serving on the Academic Council, and women had no representation on the important policymaking committees of the Council.

The quality of Stanford as a coeducational university must be improved by hiring more competent women faculty to serve as role models. The number of women on the staff should correlate more closely with the number of Ph.D.'s awarded to women by Stanford; there is also need for more part-time appointments. Maternity leaves should be given equal consideration with military leaves in permitting postponement of tenure decisions.

The Provost Office should develop goals for achieving salary equity and provide reliable information on appointments, privileges, benefits, and rights of the faculty, by sex. It was also suggested that additional funds be allocated to promote women and minority candidates in various departments and to provide for appointment of such groups to acting posts when funds are available.

No bibliography appended.

Mitchell, Donald P., Leadership in Public Education Study: A Look at the Overlooked, Academy for Educational Development, Washington, D.C., 1972, 76 pp.

Descriptors: Administrative Personnel (Elementary and Secondary School), Career Development, Certification

Type of material: Literature survey and secondary analysis of survey data on elementary and secondary school principals in Michigan; several small surveys of New York University graduates in administrative supervision; survey of states for number of teachers credentialed as administrators; and use of the National Academy of Science's data bank on doctorates to study geographic mobility.

Discussion: Problems in education: Unequal funds for education are alloted by state and by type of community, unequal services are offered by size of system--big city schools receive a proportionately smaller share of state education funds. Although cities raise more funds, they expend less due to their smaller state share. A study in Michigan of the public school principalship was utilized because its data on principals was the most comprehensive. Michigan principals are mostly White men, have largely completed requirements for certification, are trained in formal education courses. Women school principals are found mainly in the major city (Detroit). Among the states, certification requirements very, although the Master's degree is almost a universal prerequisite. Few men or women hold the doctorate.

There is very little evidence that raising certification requirements would increase the quality of school administration. What evidence there is suggests the reverse: that experience is probably the best guide to success in the principalship. Persons qualifying themselves for principalships through advanced coursework in education outstrip the number of openings; for example, in New York State in 1969-70, some 15,000 teachers were credentialed but only 203 job openings occured. Of NYU graduates in Educational Administration, more than half were still teachers 3-5 years after degree awarded. Only two states are decreasing credentialing requirements.

Principals, by and large, are less mobile than other professionals; they are likely to rise through the ranks of their own school system selected by their central office. The present system is very costly both in money and in poor results. New methods of recruitment and evaluation of teachers for administrative positions are needed.

Seventy-eight references are given.

Modern Language Association of America, Commission on the Status of Women in the Profession, "Affirmative Action for Women in 1971," Publications of the Modern Language Association, Vol. 87, No. 3, May 1972, pp. 530-540.

Descriptors: Hiring and Promotion Practices, Postsecondary Education

Type of material: Research report

Subject: Status of women in modern language departments of colleges and universities.

Population: Survey based on 418 modern language departments in the United States and Canada offering the Ph.D.

Date: Questionnaires sent spring 1971, cutoff date December 1971

Method: Questionnaires sent to the departments and answered by department chairmen, interested faculty or by a departmental committee; 256 departments (61%) responded. Results compared to 1970 MLA survey of 595 modern language departments. Purpose of study was to obtain information on areas of special interest to women and to ascertain what, if any, changes had occured between the two surveys.

Findings: Two-thirds of the departments were in public colleges or universities, one-third in private institutions. Ninety percent enrolled undergraduate students and master's candidates as well as Ph.D. candidates; 60% of their part-time and 51% of their full-time students were women. However, only about one-fifth of all full-time faculty were women: 7% of full professors, 15% of associate professors, 21% of assistant professors, and 49% of instructors and lecturers.

Of new hires, 31% were at assistant professor level (compared to 21% already on full-time staff); 21% at associate professor level (compared to 15% on staff); and 13% at full-professor level (compared to 7% on staff). Thus, some progress has been made although the majority (86%) of institutions have not instituted special procedures to recruit women, and those that had done so were those with the lowest percentages of women already on their faculties.

In 1970, no significant difference was found at assistant professor level between salaries of men and women, but at associate and full professor level the women earned about $1,000 less than the men. In 1971, 47% of the departments had not undertaken a recent review of salaries; 41% had done so. Forty-three departments had made or were planning to make adjustments to equalize women's salaries with those of men.

Fifteen percent of the departments had no part-time faculty; most had few part-time faculty except for instructors/lecturers. About half paid for part-time work at a proportion equivalent to full-time work; about one-third paid a fee per course taught. Full fringe benefits were available to part-time faculty in 26% of institutions, partial benefits at 29% of institutions; but 72% of institutions made no provision for tenure, promotion, or sabbatical leave to part-time faculty.

No bibliography appended.

Modern Language Association, Commission on the Status of Women in the Profession, "The Status of Women in Modern Language Departments, 1969-70 and 1972-73," New York, N.Y., 1974, 4 pp.

Descriptors: Hiring and Promotion, Postsecondary Institutions, Fields of Specialization, Academic Rank, Salaries

Type of Material: Research survey

Subject: Status of women in modern language departments

Population: Sample drawn from women faculty working in the field of modern languages.

Date: Data pertain to the academic years 1969-70 and 1972-73.

Method: To obtain material for comparison with the Modern Languages Association (MLA) survey of 595 modern language departments in 1970, the Commission on the Status of Women obtained data gathered by the American Council on Education (ACE) in its nationwide study of 1972-73 (for methods used, see abstract of Bayer, Alan, Teaching Faculty in Academe). Pertinent data from that study included responses from 5,500 teaching faculty in English and foreign languages (including linguistics).

Findings: About 60% of the faculty are in English, 40% in foreign languages. Women comprise 34% of the faculties in English, 35% of those in foreign languages. Men are more likely than women to be teaching in universities (41% compared to 28% of the women), women in two-year colleges (28% compared to 17% of the men). Men are more likely to have the Ph.D. (41% compared to 22% of the women), and men with the doctorate are more likely to teach in universities; Ph.D. women more likely to be found in the four-year colleges. In universities, 13% of the women are in the upper ranks (full and associate professors) compared to 53% of the men; 81% of the women are in lower ranks (assistant professors 21%, and instructor/lecturer 60%) compared to 43% of the men (only 16% are instructors or lecturers). There was virtually no change in percentage of full-time women faculty between 1969-70 and 1972-73, and changes for women in rank were so slight as to be insignificant. There has been change in type of appointment by rank for women: the percentage of women doctorates in instructor/lecturer positions declined from 10% to 3% and in associate professor positions increased from 27% to 33%, implying that there have been promotions.

Both sexes gained in salary; but the discrepancies between the sexes remained--$3,000 at rank of full professor, $1,000 at rank of assistant professor. Parity was achieved at rank of associate professor. The percentage of tenured women declined from 30% to 29%. Both men and women are more likely to achieve tenure at junior colleges, where the discrepancy between the sexes is also less (76% of men, 65% of women, compared to 63% of men and 36% of women at universities.)

No bibliography is appended.

Montgomery County Public Schools, "Report of the Task Force to Examine Equal Rights for Women in the Montgomery County Public Schools," Rockville, Maryland, December 1, 1973.

Descriptors: Administrative Personnel (Elementary and Secondary), Elementary and Secondary Teachers, Salaries, Sex Stereotype

Type of Material: Research study

Subject: Sex discrimination in Montgomery County Public schools

Population: School personnel, Montgomery County

Date: Data collected summer and fall, 1973

Method: Review of pay scales, personnel records, job descriptions and other related documents plus a survey of junior and senior high school athletics programs (response rate not stated).

Findings: Efforts have been made to implement affirmative action and some positive results are apparent. There are proportionally more women teachers in Montgomery County than in the nation (based on NEA surveys 1971-73), but the number of women elementary teachers has declined because of efforts to implement the balanced staffing concept. Women are still seriously underrepresented in administrative positions, however, and are largely present in the female sex-stereotyped positions. Among the non-professional staff women are likely to be heavily represented at the lower pay grades and nearly absent at the upper.

Work to eliminate sexism from textbooks and in curriculum is showing some success and should be continued. Sports programs offered to boys and girls are not greatly unbalanced, but there is evidence that the boys programs have somewhat more funds because of their access to gate receipts from football and basketball games.

Recommendations: To train, encourage, and recruit women for administrative positions; to prepare job analyses (not job descriptions) to make certain that differences in pay are based on responsibilities and duties and not on the fact that certain jobs are typically held by women or by men. That in developing curriculum, attention continues to be paid to eliminating sex-typing and to see that courses are not listed or described so as to seem to apply to one sex only. Study should be made of funding for sports, and attempt should be made to equalize lengths of time sports are offered to both sexes, and to equalize access to all non-contact sports.

No bibliography is appended.

Mooney, Joseph D., "Attrition Among Ph.D. Candidates: An Analysis of a Cohort of Recent Woodrow Wilson Fellows," Journal of Human Resources, Vol. 3, No. 1, Winter 1968, pp. 47-62.

Descriptors: Doctoral Dropouts, Postsecondary Education

Type of Material: Research study

Population: Woodrow Wilson Fellows selected between 1958 and 1960

Date: Data pertain to status of the Fellows as of 1966

Method: Some 3,500 graduate school histories of Fellows from the selected time period examined for demographic and socio-economic characteristics, for degree attained, field of specialization, and undergraduate history. Numerical and percentage distributions, plus multivariate regressions: the sample divided on basis of sex and two regressions run, one for men and one for women. Independent variable: Attainment of Ph.D.; dependent variables: marital status, whether or not Jewish, whether or not from a highly selective college, whether or not elected to Phi Beta Kappa, whether or not in social sciences, and whether or not in natural sciences.

Findings: In general: 35% attained the Ph.D., 3% a professional degree, 43% a master's degree (thus, 81% attained an advanced degree of some sort). As eight years was maximum for observation, the number eventually attaining degrees is underreported. The most important variable is sex: 16.5% of the women and 41.6% of the men attained the Ph.D. The reason is not readily apparent. There was no discernable relation between attainment of degree and marital status, so the woman's dependence upon her husband's residence seems not to be a factor. More women than men (52% compared to 34%) were in field of humanities which generally requires a longer period of study before attainment of degree, and this may be a partial explanation. By discipline, success in attaining the Ph.D. was greatest in the sciences, least in the social sciences and humanities; of 12 fields, the greatest success was reported in chemistry (75% receiving the Ph.D.) and least was in English (23%).

Socioeconomic factors were not greatly significant except for Jewish religious preference in men (54% attaining the Ph.D., about 14 percentage points above the total group of men).

For the men the regression analyses showed positive relationships for all dependent variables; for women only election to Phi Beta Kappa and selectivity of college had a significant positive relationship. The data currently available do not account for the differences between the sexes.

Ten references are given.

Morlock, Laura, "Discipline Variation in the Status of Academic Women," Academic Women on the Move, eds. Rossi, A., and Calderwood, A., Russell Sage Foundation, New York, N. Y., 1973, pp. 255-312.

Descriptors: Faculty, Field of Specialization, Graduate Students, Higher Education, Hiring and Promotion, Academic Rank, Academic Disciplines, Salaries

Type of material: Literature survey

Subject matter: Differences between fields of specialization in status of academic women.

Population: Samples drawn from groups of women in higher education.

Date: A series of studies mostly carried out between 1969 and 1972.

Method: Some 30 studies in 14 different academic disciplines sponsored by commissions established by professional associations, women's caucuses within associations, and independent organizations were collected and reported by the author.

Findings: The specific career dimensions covered were participation rate, rank distribution, tenure patterns, initial appointment level, salary, and productivity. It was found that only in physics and modern languages were the proportions of women among full professors equal to the lowest estimate of their availability. The largest across the board rank differences between women and men were found at the level of associate professor. Married women were also less likely than unmarried women to be promoted to ranks of associate and full professors.

Studies in discipline after discipline indicated that in comparison to their male colleagues, women are more likely to receive initial appointments at lower ranks or in nonrank positions; they are promoted more slowly and receive tenure at a later age, if at all; they are less involved in administration or in decision making at either the departmental or national professional association level; and they receive lower salaries. Some portion of these differences are accounted for by the fact that women are less likely to have earned doctorates, are more heavily in teaching responsibilities to the exclusion of research, and have lower publication rates. However, studies in several disciplines have shown that even when statistical controls are introduced for these differences in qualifications, men are more likely than their female colleagues to have appointments at higher ranks and to receive larger salaries at each rank. Together, these studies provide evidence that aggregate differences between women and men faculty reported in national studies are not the result of very large differences in some academic fields counter-balanced by equality in others.

It is also clear, however, that the magnitude of status inequities between women and men differ by academic discipline. Some disciplines (physics particularly) apparently provide a more hospitable environment to women than do other fields, for women in these fields are less likely to believe that careers have been adversely affected by sex discrimination.

The data available to the groups permit only limited speculation about reasons for the differences between men and women and among disciplines in academia.

A bibliography of 76 items is appended; together with a listing of 18 disciplines and the studies available for each.

Morrissey, W. Michael, "Sex(ism) and the School Board Member." Phi Delta Kappan Vol. 55, No. 2, October 1973.

Descriptors: Attitudes of Administrators

Type of Material: Research report.

Population: Women school board members in Indiana

Date: Data collected 1971

Method: Survey of Indiana women school board members. Details not given.

Findings: There were 97 women serving on school boards in Indiana in 1971. Only a minority thought they had observed sex prejudice in school board policymaking. Those with 6 years or more of service were less likely to feel that the superintendent showed sex bias than those with shorter service. Those from small towns were more likely to suspect bias from men teachers as well as from the superintendent than those from larger communities. Less well educated women board members were more likely to discount the value of professional experience in women board members as a means of gaining influence with the men board members.

Recommendation: Superintendents should try to increase their own sensitivity to the problem; they should work with and help to train new women board members. Superintendents working in small communities should take special pains to be aware of any bias that may exist. Seminars for board members would help all members see the general role of the board and help prevent individual members from concentrating on particular projects and attitudes.

No bibliography appended.

Morsink, Helen M., "Leader Behavior of Men and Women Principals," Bulletin of the National Association of Secondary School Principals, Vol. 54, September 1970, pp.80-87.

Descriptors: Elementary and Secondary School Principals, Elementary and Secondary Schools, Attitudes of Teachers

Type of material: Research report

Subject matter: Leadership behavior

Population: Sample drawn from secondary school principals and teachers in Michigan.

Date: Not stated

Method: A sample of 15 men and 15 women principals was drawn and the two groups matched for grade organization of school, pupil population, type and size of community, and faculty size; samples of teachers then drawn from each principal's school (usually of 5 men and 6 women). Altogether, 159 women and 169 men teachers participated, using the Leader Behavior Description Questionnaire - Form XII to describe their perception of their principal's behavior. Analyses of variance, including means, standard deviations, and "t" scores, used to indicate significance of differences between groups.

In the decade of the 1950's women principals of junior and senior high schools dropped from 18% to 3.8%. Suggested explanations include: that women lack sufficient graduate training; they prefer teaching to administration; they must compete with men for the positions; they lack tenure to qualify or financial incentive to seek the job; and that they are considered inferior to men as administrators. This study was undertaken to investigate the latter point.

Major variables: The 12 items of the Leader Behavior Description Questionnaire by sex of principal and sex and sex and other demographic characteristics of the raters (teachers).

Findings: There was no significant difference between men and women principals in their perception of their "tolerance of uncertainty" and "consideration." Men received a higher score for "tolerance of freedom." On all other dimensions of leader behavior, the women were perceived to behave in a significantly different manner from the men.

The test used is designed to describe how a leader behaves not how well. On some dimensions, the men and women were not perceived as behaving differently; this argues against the idea that men principals behave more appropriately than women. Men were perceived as more tolerant of freedom; this is appropriate behavior, if it does not extend to disorganization. Women were more often perceived as speaking and acting as representative of the group, persuasive in argument, emphasizing production, maintaining cordial relations with superiors, influencing them and striving for higher status. If these are appropriate behaviors, women should make good principals. At least, the findings suggest no reason for not employing women as principals.

No bibliography; four references are included.

National Association of Secondary School Principals, Report of the Senior High School Principalship, Washington, D.C., 1965.

Descriptors: Elementary and Secondary School Principals

Type of material: Statistical study

Subject: Description of senior high school principals

Population: Sample drawn from all senior high school principals in the U.S.

Date: Questionnaires sent December 1963; cutoff date March 4, 1964

Method: 23,555 questionnaires were sent to "every high school principal in the U.S." Because of reorganization and consolidation of school districts the number had to be estimated at slightly less than 23,000. 16,082 answers were returned, probably between 67% and 70% of the population surveyed. Five forms of the questionnaire were used; numbers of responses for each of the forms was similar (range from 3,160 to 3,251), so there appears to be no serious sampling bias with respect to returns by form number. Results are reported by numerical and percentage distribution.

Findings: Although the principals were asked their sex, the information was not cross-tabulated with most of the other data; 10% of the principals in the sample were women. Women tended to be principals in urban rather than rural schools (16% compared to 5%); in independent (private) rather than public schools (48% compared to 2%); and in the northeast rather than southeast or west (16% compared to 6% and 9%). (Data were collected by three broad areas of the country.) They were also likely to be principals of smaller schools and schools with a lower per-student expenditure.

Asked to report the percentages of teachers in their schools who were men the distribution was as follows: 22% reported 39% or less of teachers were men; 14% reported 40-49%; 21% reported 50-59%; and 43% reported 60% or more of their teachers were men.

By experience, 56% had had more than one year experience as athletic coach or director; 48% had similar experience in counseling or guidance; 38% as elementary school principal; and 33% as elementary school teacher. Experience immediately before first appointment to a principalship: secondary school teaching --36%; secondary school assistant or vice-principal--22%; athletic coach--14%. Most felt their most important experience was in secondary school administration: 90% as secondary assistant or vice-principal, 53% as secondary school dean. From 70% to 73% felt that certification requirements for teaching experience, educational administration experience and professional coursework were about right.

A bibliography of 6 references is appended.

National Council of Administrative Women in Education, Wanted--More Women in Educational Leadership, January 1965; Wanted--More Women: Where are the Women Superintendents?, undated, Arlington, Va.

Descriptors: Administrative Personnel (Elementary and Secondary), Employment Opportunities

Type of Material: Literature review and discussion by the National Council of Administrative Women in Education (NCAWE).

Subject: Women in policymaking levels of education

Date: Literature published between 1956 and 1970; updated to 1975.

Discussion: For two decades the percentage of women in positions of influence, as well as women's prestige and financial reward has been declining. On the elementary school level, in an area where women formerly predominated, the presence of women principals dropped almost 20% from 1950 to 1961. The number of women secondary school administrators and state superintendents also showed a sharp decline, and women have not progressed in higher education, since few reach the upper echelons of teaching, research and/or administration. Reasons for women's lag in rising to policymaking levels in education include their failure to continue formal education on higher levels in the same percentage as men. Women's interrupted careers also present a drawback. In a 1963 survey the National Education Association found that fewer than one-fifth of women teachers were between the ages of 30 and 39, crucial years during which candidates are most likely to be considered for promotion. Traditional concepts of roles and a reluctance to leave teaching for the additional responsibilities of administration also put women at a disadvantage, as does the reorganization of school districts which increases the attractiveness of the superintendency as a career opportunity for men competitors. The lack of women's participation on the college level may be attributed to a scarcity of women holders of advanced degrees in the disciplines where they are most needed. Opportunities for advanced study have been less available to women and financing has been a problem.

Important reasons for the scarcity of women in educational leadership include women's lack of career drive and the conflice of marriage/career roles. Yet studies show that women are more effective as principals and, given sufficient motivation and preparation, women suceed as educational administrators. Women excel in the competition for principalships if high value is placed on working with teachers and outsiders, knowledge of teaching methods and techniques, concern with objectives of teaching, and gaining positive reaction from teachers and superiors. The council recommends encouraging women to prepare for and accept the challenge of administrative work, and encourages school systems to employ qualified women as administrators.

Most school systems are unable to distinguish between women who wish to make teaching their final goal and those who prepare themselves for administration and who seek wider responsibilities. Outdated assumptions by many administrators automatically eliminate women from promising positions, because the administrators assume women cannot travel or relocate. School systems have made no effort to accommodate to the fact that women have societal responsibilities for childbearing and childrearing. Instead, the teaching mother loses her position and her tenure, and/or is required to take mandatory leave.

New federal legislation, including the extension of the Equal Pay Act, Title VII of the Civil Rights Act, Executive Order 11246, and Title IX of the Education Amendments of 1972 are seen as providing remedies for sex discrimination which, with the greater awareness of superintendents and supervisors, should improve women's status in education.

A list of 37 references is appended to the first pamphlet and 20 to the second.

National Education Association, 26th Biennial Salary and Staff Survey of Public School Professional Personnel, 1972/73, Research Report, 1973-R5, Washington, D.C., 1973.

Descriptors: Salaries, Elementary and Secondary School Teachers, Administrative Personnel (Elementary and Secondary), School Staff (Elementary and Secondary)

Type of Material: Statistical report.

Subject: Biennial salary survey of full time professional staff in public school systemsduring 1972-73 school year.

Population: Sample drawn from the approximately 16,425 public school systems in the nation.

Date: 1972-72 school year (Biennial report).

Method: All 187 systems with enrollment of 25,000 or more were sent questionnaires; 165 (88%) responded with usable information. A representative sample of the remaining 16,238 systems was surveyed; 72% responded. Salary data were obtained on basis of specified intervals, and means and medians were prepared from the grouped distributions.

Data available: Distributions of salaries paid to: department heads, librarians, counselors, social workers, visiting teachers, psychologists and psychometrists, nurses, elementary school, junior and senior high school principals, assistant principals, and classroom teachers; by school system and by size (institutions with more than 25,000 enrollment, 24,999 to 2,999 and, below 300). Number of professional staff by sex, by size of system, and by educational background.

No bibliography appended.

National Education Association, Elementary School Principalship in 1968, Department of Elementary School Principals, NEA, Washington, D.C., 1968 .

Descriptors: Women's Work Patterns, Elementary and Secondary School Principals, Salaries

Type: Statistical study

Subject: Characteristics and work role of elementary school principals

Population: Sample drawn from principals of elementary schools with enrollments of 300 or more

Date: Data gathered over 12 successive weeks beginning February 1967

Method: Stratified random sample constructed approximately 11,500 school systems with elementary grades and enrollment of 300 or more were grouped into 8 strata by enrollment; within the strata, 690 systems were randomly selected. Mailing list set up by random selection of principals within those systems : 2,551 persons representing some 45,000 to 50,000 principals were sent 72-item questionnaires; response (with followups) was 91.7 percent.

Appended tables show tolerances required to obtain significance at 90 percent level of confidence for given ranges of percentages and subgroup sizes.

Major variables: School system enrollment (25,000 or more, 3,000 to 24,999, 300 to 2,999), geographic area (northeast, southeast, middle, west), and the principals' characteristics : teaching or supervising principal, years of experience as principal, academic preparation, and sex.

Findings: Of the supervising principals, 25 percent were women and of the teaching principals, 36 percent were women. Sixteen percent of the men and only 2 percent of the women were under 35 years of age. At the time of the first appointment, 67 percent of the men were less than 35 years of age while 61 percent of the women were between 35 and 49 years of age.

Among the men, 83 percent have less than ten years of experience in elementary classroom teaching, whereas 75 percent of the women have 10 or more years of experience. There is no significant difference in the degrees attained by men and women, and the 2 percent who attained the doctoral level has not changed since 1928.

The percentages of people who hold administrative certificates, the hours worked in school or out of school in related activities, and salaries earned exhibit no significant difference by sex.

Women principals are more likely to be in urban schools, and much less likely to be married (95 percent to 44 percent). Ninety percent of the men and 80 percent of the women had preparation in school administration and/or supervision and curriculum. However, in examining what the principals themselves consider as contributing most to their success as principals, only 2 percent of the men and 1 percent of the women considered their academic education as the critical factor. Both men and women considered on-the-job training to be their most significant learning experience.

More than half the women supervising principals indicate that they became principals because they were encouraged by the superintendent's office; NEA suggests that men are more likely than women to have strong personal drives to seek administrative positions; half of the men but 79 percent of the women considered principalship their final goal.

The study shows that the proportion of women principals has been declining from 55 percent in 1928 to 22 percent in 1968, with a 42 percent drop in the last decade. This cannot be due to a lack of qualified women or to a lack of role models to encourage young women to prepare for the position. NEA admits that they have sold the principalship as a position worthy of the talent of the most capable young men, possibly to the detriment of young women. They propose that in order to increase the number of women principals, colleges of teacher education will find it necessary to initiate intensive efforts to prepare a generation of young women who will find school administration as attractive as these activities have apparently become to many young men.

Notes included 8 references.

National Education Association, "Professional Women in Public Schools, 1970-71." NEA Research Bulletin, Vol. 49, No. 3, October 1971, pp. 67-68.

Descriptors: Elementary and Secondary Education, Elementary and Secondary School Staff

Type of Material: Research report.

Subject: Professional employment of women in public schools

Population: Women professional workers in public schools

Date: School year 1970-71

Method: Brief preliminary report of nationwide NEA survey. Method not given.

Major Variables: Occupational categories by sex.

Findings: In all professional fields in the public schools except those of teacher, nurse, and librarian, men predominate. Of total full-time professional staff 64% were women, but women held only 20T of administrative and supervisory positions, were only 15% of all principals, 31% of department heads, 26% of central-office administrators, less than one percent of superintendents. On the other hand, women teachers, nurses and librarians account for 96% of the professional women employed in public school systems in 1971.

No bibliography appended.

National Education Association, Research Division, *What Teachers Think: A Summary of Teacher Opinion 1960-65*, Research Report 1965-R13, NEA, Washington, D.C., 1965, 59 pp.

Descriptors: Attitudes of Teachers, Elementary and Secondary School Teachers

Type of Material: Statistical report

Subject: Teacher opinion

Population: Samples drawn from United States elementary and secondary public shcool teachers

Date: Summaries of responses to five annual teacher opinion polls, questionnaires mailed March 1960, and annually to March 1964.

Method: Describing the method for the most recent survey included in this report: 1,574 classroom teachers representing an estimated total of 1,574,800 teachers in the United States sent questionnairs March 1964: 95.5% responded.

Two tables in Appendix B give methods of estimating sampling variation to the 90% level of confidence.

Data Available: Teachers attitudes on educational policy and duties; on professional and welfare status, and on political activity, by elementary and secondary teachers, by sex, by size and location of school system.

No bibliography appended.

National Education Association, NEA Research Memo 1974-1, Summary of Salaries Paid in Higher Education, 1973-74, Washington, D. C., November 1974.

Descriptors: Administrative Personnel (Postsecondary), Faculty, Salaries

Type of Material: Statistical Report

Subject: Faculty and Administrator Salaries

Population: 2-year and 4-year public and private institutions of higher education.

Date: 1973-74

Method: Questionnaires were sent to 2,957 institutions, 1,547 (52.3%) responding. Public 4-year institutions had the highest rate of response (72.3%), public 2-year institutions next (54.1%), nonpublic 4-year and 2-year institutions last at a rate of 46.7% and 31.7%.

Date Available: Faculty and administrator ranks by type of institution; percentage of salary increase for administrators continuing in same position.

No bibliography appended.

National Education Association; NEA Research Memo 1973-7, The Status of Women Faculty and Administrators in Higher Education Institutions, 1971-72, Washington, D.C., 1973.

Descriptors: Postsecondary Institutions, Faculty, Salaries, Academic Rank

Type of material: Statistical Report

Subject: Faculty salaries and rank, administrative positions and salaries

Population: Institutions that grant 4-year or higher degree and 2-year institutions identified in Education Directory, 1970-71, Higher Education, and Directory of the American Association of Junior Colleges, 1971

Date: Questionnaires received on or before April 28, 1972 (one of a series of biennial surveys)

Method: Questionnaires sent to 1,742 institutions that grant 4-year or higher degrees and to 1,101 2-year institutions with follow-up to those not responding

63.9% of the 4-year and 61.6% of the 2-year institutions responded.

Data available: Faculty salary information by sex and rank and by type of institution -- 4-year, 2-year, public, nonpublic; salary of administrators by sex by 4-year and 2-year institutions; also number of administrators in 4-year institutions, their salaries paid by sex and type of institution (size of enrollment, public or nonpublic).

No bibliography appended

National Education Association, Research Report 1972-R5, Salaries Paid and Salary-Related Practices in Higher Education, 1971-72, Washington, D.C., 1972

Descriptors: Administrative Personnel (Postsecondary), Faculty, Salaries

Type of material: Statistical Report

Subject: Salaries paid to instructional personnel and administrative officers

Population: Institutions that grant 4-year or higher degree and 2-year institutions identified in Education Directory, 1970-71, Higher Education, and Directory of the American Association of Junior Colleges, 1971

Date: Questionnaires received on or before April 28, 1972 (one of a series of biennial surveys)

Method: Questionnaires sent to 1,742 institutions that grant 4-year or higher degrees and to 1,101 2-year institutions, with follow-up to those not responding. 63.9% of the 4-year and 61.6% of the 2-year institutions responded.

Data available: Salaries paid to faculty and administrators in 4-year and 2-year institutions by sex, rank, and type of institution -- public or nonpublic, location by geographic region, size of enrollment

No bibliography appended

National Education Association, *Research Report 1973-R6*, *Faculty Salary Schedules in Community-Junior Colleges, 1972-73*, Washington, D.C., 1973

Descriptors: Community Colleges, Salaries, Faculty

Type of Material: Statistical report.

Subject: Scheduled maximum and minimum salaries and salary increments

Population: Sample drawn from all 2-year colleges in the United States

Date: Academic year 1972-73; 6th in a series of annual surveys

Method: Sampling method not stated. Report includes data from 536 public and 49 nonpublic institutions representing 50,640 full-time faculty members, or 61.1 percent of the estimated total full-time faculty in 2-year colleges in 1972-73. Salary schedules are reported from institutions a) responding to the survey, b) part of a reported state-wide system, c) part of a reported community-college district, or d) sending a schedule because of coverage in a previous survey. Data are reported for institutions rather than for individuals.

Data available: Maximum and minimum salary schedules given for faculty by degrees held and/or years of graduate school completed by rank and by size of institution (enrollment under 1,000, 1,000 to 1,999, and 2,000 and over); salary ranges given by quartile, median, and mean. Schedules are reviewed for academic years 1965-66 and 1967-68 through current survey year, and precentages of salary increase are reported. Maximum and minimum salaries are reported by faculty credentials held for all reported institutions, listed by state.

Examples of salary schedules are appended.

No bibliography is appended.

National Education Association, Research Report 1973-R7, Faculty Salary Schedules in Colleges and Universities, 1972-73, Washington, D.C., 1973

Descriptors: Faculty, Salaries

Type of Material: Statistical report

Subject: Faculty salary schedules in 4-year institutions

Population: Public and Nonpublic 4-year institutions

Date: 1971-72 (Sixth in series of reports on salary schedules in 4-year institutions)

Method: Survey questionnaire involving 183 public and 392 nonpublic 4-year institutions. Information derived from salary schedules supplied by 4-year institutions in connection with 1971-72 survey, Salaries Paid and Salary-Related Practices in Higher Education, 1971-72.

Data available: Faculty salary schedules for public and nonpublic 4-year institutions by rank, enrollment, increments. Included are salary schedules for the specific institutions responding.

No bibliography appended.

National Education Association, Status of the American Public School Teachers 1970-71, Research Report 1972-R3, Research Division, National Education Association, Washington, D. C., 1972.

Descriptors: Elementary and Secondary School Teachers, Salaries, Attitudes of Teachers

Type of Material: Statistical Report

Subject: Personal and professional characteristics of public elementary and secondary school teachers in America

Population: A sample of teachers drawn from the U. S. public school systems

Data: Questionnaire mailed in February 1971 (fourth of a series of surveys conducted every five years)

Analysis: Appendix A gives estimates of sampling variations

Method: All superintendents of 406 randomly selected school systems (100 percent response) submitted a roster of teachers in their systems. Through use of a sampling fraction, a self-weighting sample of 1,889 teachers was drawn, of which 1,533 (81.2 percent) responded to the 64-item questionnaire.

Data Available: Personal, professional, and economic characteristics of the sample by age, sex, elementary and secondary level, interruptions of service, size of school and school system, and geographical region; attitudes toward profession, and community and civic life by sex, age; and comparisons of findings of 1961 and 1966 studies with the 1971 study.

No bibliography appended.

New Jersey, Committee W of the New Jersey State Conference of the American Association of University Professors, *The Status of Women in Higher Education*, April 1972, and *Stalemate or Progress*, March 1973.

Descriptors: Administrative Personnel (Postsecondary), Faculty, Fringe Benefits, Postsecondary Education

Type of Material: Research study.

Subject: Status of women in higher education in New Jersey.

Population: All 50 institutions of higher education in the State of New Jersey (2- and 4-year colleges and universities under public, private, or private-religious sponsored control).

Date: First study questionnaires sent November 1971, follow-up study questionnaires sent late 1972. Data pertain to academic years 1970-71, 1971-72, and 1972-73.

Method: Presidents of the 50 institutions were sent a five-page questionnaire on the participation of women in their institutions and on policies and practices affecting these women. Response for the first study included 27 (54%) of the institutions, but represented 87% of enrollment in 4-year public and private institutions (least response from 2-year institutions); response for the second study was 21 (42%) of the 50 institutions and represented some who failed to respond to the first questionnaire.

Findings: The 1971 survey found female faculty and administrators disproportionately concentrated at lower ranks and women trustees even less in evidence. Only a minority of New Jersey colleges had a standard maternity leave policy. None offered the option of a fully paid leave, and some restricted their maternity leaves to tenured faculty only.

Overall, representation of women on college committees was in proportion to their representation on the faculty, but in some cases the women were underrepresented in crucial personnel decision-making committees.

The 1972 follow-up survey found that overall percentages of women on faculty had not improved during the year. While there was some comparative gain in rank since 1971, women faculty were still disproportionately concentrated at the lower ranks. Women did not hold tenured positions in comparable proportions to men. Their participation in part-time faculty jobs and in all administrative jobs was still low, and women were still sparsely represented on boards of trustees.

Despite 1972 legislation requiring that all employers make maternity leaves available, a number of the surveyed colleges had not officially changed their policies. More importantly, few colleges had designed parental leave policies beyond the legal minimum or tried to provide options to minimize the effect of childbearing and childrearing upon a faculty woman's chance of being retained, promoted or given tenure. A paternity leave was thought to be ridiculous by many college administrators.

No bibliography is appended.

New York, Regents of the University of the State, Equal Opportunity for Women, The State Education Department, Albany, New York, April, 1972.

Descriptors: Career Development, Elementary and Secondary Education

Type of Material: A statement of policy and proposed action by the Regents of the University of the University of the State of New York.

Findings: This report notes that the career patterns for women have changed very little over the years and that women are still employed in limited occupations paying low salaries, with little opportunity for advancement. Men are taking over jobs that were traditionally dominated by women in elementary and secondary education, in social work, and in libraries.

In 1970-71, on the professional staffs of the school districts in New York State, there was only one woman superintendent and one woman district principal, although women constituted 59% of the staffs. Only 21% of the principals in elementary school, 5% in middle school, 8.0% in junior high, and 3% in senior high were women.

The regents urge that women be provided with fair opportunities for leadership, equal salary and advancement through affirmative action in recruitment, and in promotion to professional and managerial positions. They also urge elimination of sex stereotyping in the curriculum, and provision of equal opportunities for access to higher education.

No bibliography appended.

Niedermayer, Gretchen, and Kramer, Vicki W., Women in Administrative Positions in Public Education, A Position Paper prepared by the Recruitment Leadership and Training Institute, Philadelphia, Pa., July 1974, pp. 66.

Descriptors: Administrative Personnel (Elementary and Secondary), Discriminatory Practices, Elementary and Secondary Schools

Type of Material: A position paper making use of an extensive literature review.

Subject: Women administrators in public education

Date: Over 90% of literature published 1970 or after.

Findings: The literature shows the overwhelming predominance of men at administrative levels in elementary and secondary schools and the decline in proportion of women in such positions. The authors cite other studies that challenge the presumption that women do not aspire to administration, and that there is an insufficient pool of women with proper credentials and certifications. Most school systems are unable to distinguish between those women who wish to make teaching their final goal and those who aspire to positions of wider responsibility. Certification is used as an obstacle to advancement when it is convenient to do so. Many women deny or fail to recognize discrimination. Areas where discrimination may occur include recruitment and selection methods and criteria, job descriptions and forms, promotional criteria, segregated facilities and activities, job titles and duties, age factors, extracurricular activities and stereotyping. The causes of the patterns of discrimination, the authors suggest, are supported by a complex of traditions, and both men and women are likely to exhibit sexist attitudes. Remedies must deal with changing attitudes combined with immediate efforts to revise systems and procedures that operate to discriminate.

The study summarizes the variety of responses already made by government, professional associations, special interest groups, and schools of education through such activities as laws, task forces, research, conferences, professional meetings, publications, organizational change, and recruitment and training programs.

A list of 113 footnotes and a bibliography of 27 suggested readings.

Nies, Judith, Women and Fellowships, Report No. 1, Women's Equity Action League's Educational and Legal Defense Fund, Washington, D. C., April 1974, pp. 23.

Descriptors: Financial Aid, Postsecondary Education

Type of Material: Informal presentation of research: Review of records, surveys, and interviews with personnel of foundations and other grant-making organizations by the Director of the Project on Fellowships and Foundations of the Women's Equity Action League.

Findings: Fellowships are important in that they provide recognition, support for original research and writing, and important professional contacts. The Women's Equity Action League project on fellowships sought to monitor foundations and grant-giving institutions to determine if internal procedures work against the application and selection of women and minority groups. Women in 1972 received fewer than 20 percent of major fellowship awards--in management and science awards, only 2%. In talking with fellowship administrators, it was found that they considered women to have such "problems" as instability, lack of commitment, and primary obligations to family. Women were severely underrepresented as recipients of the Guggenheim, Ford Foundation, White House Fellows, and Alfred P. Sloan awards. Recommendations include redesigning promotional literature to encourage women applicants, generating publicity where women are likely to be exposed to it, and providing more flexible age requirements. Sex biases should be eliminated and more women placed on selection boards.

A bibliography of 8 items is appended.

Null, Eldon J., and Spence, Betty A., "Selected Variables of Teachers and Their Perception of Male and of Female Principals," paper presented at the 58th annual meeting of the American Educational Research Association, New Orleans, La., February 28, 1973, 14 pages.

Descriptors: Elementary and Secondary Schools, Elementary and Secondary School Principals, Attitudes of Teachers

Type of material: Research report

Subject matter: Leadership behavior

Population: Full-time teachers in 16 elementary schools in a large metropolitan school system.

Date: Not stated

Method: The 16 schools were selected because all had faculties of both sexes, of differing ages, various years of experience, and different marital situations. Seven were supervised by men principals, nine by women; all principals had served at least one year in present position.

Teachers were given the Leader Behavior Description Questionnaire - Form XII and a brief personal data inventory; 458 teachers agreed to participate, 341 returned usable questionnaires. A study of non-respondents showed no indication of systematic bias.

Two-way analyses of variance were utilized; all statistical tests were run at the .05 level of significance. Effects of sex, age, years of experience and marital status were examined; interactions of sex with each of these variables were tested, 12 dependent variables (the items of the questionnaire) were used, and separate analyses of variance were computed for teachers in schools with men principals and for those in schools with women principals.

Major variables: Leadership behavior variables; sex of principals and of raters (teachers).

Findings: Women teachers rated men principals higher than did men teachers on half of the qualities covered in the questionnaire, especially on reconciliation, tolerance of uncertainty and role assumption. Men and women teachers tended to perceive the behavior of women principals in a similar manner. Older teachers tend to rate the behavior of women principals more highly than do younger teachers (age classification: under 40, and 40 or older), on 7 of the 12 items. Teachers with 10 or more years of experience tended to rate women principals higher than did those with fewer than 10 years of experience. Married teachers perceived the men principals more favorably than did the unmarried, but marital status appeared not to be related to perception of women principals.

Women teachers appear to prefer men principals, but older and more experienced teachers perceive the women principals in a more positive way than do their younger, less experienced colleagues.

A bibliography of five items is appended.

Oltman, Ruth M., "Campus 1970--Where Do Women Stand?" American Association of University Women Journal, Vol. 55, No. 2, November 1970, pp. 14-15.

Descriptors: Graduate Students, Faculty, Administrative Personnel (Postsecondary)

Type of Material: Research study

Subject: Women's position in higher education, especially with regard to policymaking.

Population: Sample drawn from colleges and universities holding corporate membership in the American Association of University Women (AAUW).

Date: Not stated

Method: Presidents of all colleges and universities in stated populations sent questionnaire; 454 institutions (about two-thirds) responded. The sample was felt to be generally representative though the AAUW institutions represent a higher percentage of public schools.

The questions covered participation of women in decision-making; policies on hiring and promotion, maternity leave, nepotism, programs for mature women students; and utilization of women in major offices and committees. Questions were formulated to determine both administrative attitudes and institutional data.

Findings: The survey showed that though 98% of the schools state that policies are the same for men and women, 34 schools (all coeducational) have no women department heads, and the mean number for all schools is less than three per institution. Women are seldom found in critical decisionmaking positions, nor are they actively recruited, although 92% of the schools state they include women as top-level administrators.

Women faculty are stated to be represented on almost all faculty committees and boards by 35% of the schools; the others report that women are members of a variety of boards, councils and committees. They are more likely to work on committees on academic standing, student life and curriculum, less likely to belong to those on guidance, scholarship, judicial problems, long-range planning, institutional research, admissions, educational or advisory policy.

Seventy-nine percent of the schools have maternity leave policy-58% adjust time "as needed," 6% grant two months or less, 36% grant from 3-18 months. Most continue fringe benefits during maternity leave and will rehire without loss of seniority (it was not asked if this applied to faculty women without tenure).

Women trustees are increasing in numbers, but not in proportions comparable to their representation in student bodies and alumnae. Their ratio to total number of trustees ranges from 1 to 9.5 in coeducational schools to 1 to 2.5 in women's colleges; overall, the average is 1 to 8.

Thus, it appears there is a "disparity between stated policy and de facto discrimination."

No bibliography is appended.

Padilla, Arthur H., *The Market for Teachers in the Nation and the Southern Region*, Southern Regional Education Board, Atlanta, Georgia, 1975, 24 pp.

Descriptors: Elementary and Secondary School Teachers, Labor Market

Type of material: Analysis of literature & projections of supply and demand for teachers

Subject: Job market for teachers

Population: Elementary and secondary school teachers

Date: Materials published from 1970 to 1973, projections for teacher employment into the 1980's.

Discussion: School enrollments, which increased dramatically during the 1960's, are declining. Elementary enrollment has been declining since 1970, and by 1982 the population aged 5 to 17 is expected to be about one million less than it was in 1960. The rate of annual growth in teacher employment is slowing, the growth rate having reached its peak in the first half of the 1960's. Demand for elementary teachers is expected to decline through 1980.

Demand for teachers is based not only on enrollment growth, but also on the need to replace teachers leaving the profession, to staff new programs, and to permit lower student-teacher ratios. In the past, replacement has accounted for about 65% of the *new* annual demand (8% of the total annual demand), since turnover of teachers has been very high. (This is in part due to women's work patterns and in part to the comparatively low pay of teachers--a fairly common practice in fields dominated by women, which makes the turnover of men fairly high as well.) Few new programs are being planned and student-teacher ratios have stabilized over the last few years. New college graduates have filled about 75% of the new demand (during the 1960's) and the other 25% was filled by experienced teachers returning to teaching.

The potential supply of entrants to the teaching profession is "a variable concept." Married women may drop out and later return. There is also some evidence that in prosperous times, more teachers seek nonteaching jobs. Over the past 15 years, the percent of entering teachers has ranged between 64% and 74%, with more graduates prepared for elementary school entering teaching than those prepared for secondary school teaching. Only the new graduates are readily identifiable.

Comparison of amount of new demand anticipated and new graduates (even though not all will enter teaching) reveals an oversupply which is expected to continue during the 1970's.

There is need for better dissemination of information for the use of today's students, to help guide them in career choice.

A similar study has been undertaken for the fourteen states in the Southern Region.

Seventeen notes and references are listed.

Paloma, Margaret M., "Role Conflict and the Married Professional Woman," in Safilios-Rothschild (ed.), *Toward a Sociology of Women*, Xerox College Publishing, Lexington, Mass., 1972, pp. 187-198.

Descriptors: Career Development, Sex Roles

Type of Material: Research study

Subject: Conflict between marriage and career

Population: Sample drawn from married couples in which the wife is actively pursuing a professional career.

Method: Fifty-three married couples selected in which the wife pursues an active career in medicine, law, or college teaching. These fields chosen because all require extended training, all make pronounced but different demands, and all are male-dominated fields. Both spouses were interviewed separately and together in 2- to 3-hour sessions; the interview was based on the Rapoport and Rapoport techniques.

Six areas of interest were selected: the husband's profession and career, the wife's profession and career, the interrelation of the two professions and careers, the handling of problems relating to children, relationships with relatives, and relationships with friends.

Findings: Role conflict (between a woman's family responsibilities and her career) was found to be a problem only at certain points: especially the periods of intensive work involved in thesis writing, internship, and the like. After the degree was earned, the worst pressures subsided and subsequent conflicts could usually be controlled.

The main devices used to handle role conflict are these: Compromise and compartmentalization: The women do not let their work demands encroach on family time and concerns; they organize household work, prepare and plan ahead. When the children are young nearly all are prepared to interrupt their careers (80% had done so). They feel some guilt about the possibility of neglecting children but feel that, for themselves, the stimulation of working makes them more at ease at home. So long as the husband does not feel threatened by the woman's work, the woman usually feels secure.

Setting role priorities: for most this means, in case of serious conflict, putting the family interest first. Most are aware that their careers receive less emphasis than those of their husbands, but they appreciate the freedom to work rather than regretting the restraints they work under.

Few were experiencing unresolved conflict (about 15%). In three cases, the wife had to work for financial reasons; in others a crisis situation had arisen and its resolution was not yet clear.

By and large, by favorable definition of the situation, by tact and planning, and by willingness to put family roles first as needed, these women avoided role conflict of major dimensions.

A list of 21 references is appended.

Patterson, Michelle, "Sex and Specialization in Academe and the Professions," in Rossi and Calderwood, eds., Academic Women on the Move, Russel Sage Foundation, New York, New York, 1973, pp. 313-331

Descriptors: Career Choice, Sex Roles, Sex Stereotypes, Fields of Specialization

Type of material: Literature Survey

Subject matter: Sex stereotyping of professions

Population: Women in higher education

Date: Literature surveyed published mostly between 1961 and 1971

Findings: Work in America traditionally has been sex-stereotyped--professional fields are dominated by men; while service occupations are dominated by women. Moreover, the sex composition of occupations has changed little over time.

Women who enter male-dominated fields are likely to be considered deviant. In order to offset this, they tend to adopt compensating mechanisms, either by acting like a man or conforming to feminine stereotypes. If they select careers that are male-dominated, they tend to select those subfields that are least deviant. For instance, women doctors are overrepresented in pediatrics; women lawyers in estates and trusts dealing with family problems. Few women lawyers or doctors are in general practice, where they would have to be accepted by a wider variety of clients.

Considerably larger numbers of women are in academia, but women still are a relatively small minority. They are overrepresented in the social sciences, languages, and literature, and underrepresented in the sciences. Following the theory that women in male-dominated professions select those subcategories that are least "masculine," the study concludes that the majority of women are found in a narrow range of specialties within their academic discipline and their specialties are generally the less prestigious ones.

There are two explanations for this, the pressure theory and preference theory. The pressure theory proposes that women are discouraged by professors, and turned down by employers on the basis of sex. In the face of such pressure, women conform to the "more appropriate" specialties in order to achieve acceptance from their colleagues and society at large.

The preference theory suggests that women themselves make their choice because of their different interests, which in turn are influenced by sex-role socialization and stereotyping.

Women's aspirations and career choices are the end product of a complex process of internal and external pressure, which are little understood. Only with further research will we be able to develop social policies which will permit women to fulfill their highest potential.

A bibliography of 24 items is appended.

Pennsylvania University Council, Report of the Committee on the Status of Women, Women Faculty in the University of Pennsylvania, Pennsylvania University, March 23, 1971.

Descriptors: Discriminatory Practices, Postsecondary Education, Faculty

Type of Material: Research study

Subject: Status of women faculty at University of Pennsylvania

Population: Women faculty

Date: Questionnaires sent October 1970; data pertain to the academic year 1970-71

Method: Two questionnaires were sent, one to all department chairmen and one to all schools with teaching faculty. Institutional records were examined. Precise methodology not detailed.

Findings: The purpose of this report was to explore the status of faculty women and make recommendations to remedy any inequities found. The general picture which emerges is similar to that found at other universities: there are very few women on the faculty; women are concentrated in the lowest ranks; many departments have no women faculty members; there has been little change in departmental staffing patterns in the last five years; there are prohibitions against employing husband and wife teams; and women faculty members earn less than men in the same ranks. Women are less visible in other aspects of the academic community--as invited speakers, artists in residence, recipients of honorary degrees,and as members of committees and the University Senate. Inadequate record-keeping is a major barrier to making determinations about the faculty.

A pool of qualified women teachers and scholars does exist, but it has not been drawn upon efficiently, especially by the larger universities. The desired qualifications for replacements for all vacancies should be published in appropriate professional journals. Women should be appointed to committees, administrative positions, and as lecturers. The administrator responsible for insuring compliance with anti-discrimination procedures should have the power to initiate review of appointments, free access to departmental records, and access to the Personnel Committee for advice. A budget should be set aside specifically for the appointment of qualified women scholars.

All appointments should be made solely on the basis of demonstrated competence; husbands and wives should be employed, even within the same departments. When a man and woman are equally qualified, the woman should receive the promotion.

No bibliography is appended.

Pingree, Suzanna, and Butler-Paisley, Matilda, Attitudes toward Hiring a Professional Couple: Result of a Recent Study, a paper presented at the Symposium on Academic/Professional Women in Communication and Related Fields by the International Communication Association, New Orleans, La., April 1974, 24 pages.

Descriptors: Attitude of Administrator, Postsecondary Institutions

Type of Material: Research study

Subject: Attitudes toward hiring a professional souple in institutions of higher education.

Population: Chairpersons of U.S. colleges and universities

Date: Questionnaires mailed December 1973.

Method: Questionnaires sent to the chairpersons of either the psychology or sociology department of all 2027 colleges and universities in the United States; 329 (16%) responses received (21 of the 34 "major" universities - so rated by a team of social scientists--responded).

Questionnaires asked if the chairperson had openings for a Ph.D. couple in the same department (this as an extreme posision since it would be easier to asent to hiring within the same institution but not the same department). Also asked what were considered the major advantages and disadvantages to both the institution and th the couple in such hiring.

Findings: About one-third of the administrators opposed hiring a husband-wife team while another third supported employing such a couple. No significant relationships were found between attitude and experience with such couples nor between attitude and type of university.

Respondents were also asked to list the specific advantages and disadvantages that they saw in hiring Ph.D. couples. Both positive and negative responses tended to cluster around the following areas: effects on other personnel and morale within the department; administrative considerations, and the couple's own interrelationships. The authors also note that respondents tended to view the husband and wife as a "package" and not as separate individuals.

Similar characteristics were expected by some respondents to produce positive consequences and by others to produce negative consequences. The authors suggest that a fruitful strategy for overcoming negative attitudes might be to stress the positive aspects (rather than combatting negative aspects) of whatever characteristic the chairperson might consider a problem.

Two references are listed.

Reagan, Barbara B., Maynard, Betty J., "Sex Discrimination in Universities: An Approach through Internal Labor Market Analysis," AAUP Bulletin, Spring 1974, pp. 13-21.

Descriptors: Faculty, Salaries

Type of Material: Research report

Subject: Faculty salary differentials by sex

Population: All full-time faculty plus all part-time faculty at instructor or higher levels at Southern Methodist University (SMU)

Date: Academic year 1971-72

Method: Data gathered from university records plus faculty-prepared statements of background, professional and university service; universe: 522 faculty excluding adjunct professors, lecturers, teaching assistant and top administrators with faculty status. Paper discusses the application of the concept of an internal labor market in the design of a salary study done at Southern Methodist University (SMU).

Academic rank was deliberately ommitted as a variable, and, to adjust for field, departments were grouped which had a similar level of entrance salary for an assistant professor with a new Ph.D. The analysis served to determine salary differentials due to sex discrimination and to identify the women with salaries below that of average comparable men.

Findings: In general, women tend to be found in lower academic ranks, often with salaries lower than those of men of similar status, but more exact measures are needed for the specific remedying of individual salaries. In the regression analysis, these variables were used: highest degree obtained; a ranking of the school giving highest degree; years in present rank; sex; and index based on professional service, publications, or artistic contribution; level of department entrance salary; and percentage of salary from grants or contracts. Regressions were also run separately for the different schools within the University.

The main "entry port" promotion is usually from within, though some upper ranking positions are filled from outside. The normal "promotion path" is based on an accepted pattern of productivity and credentials. Occasionally, an assistant professorship is given as reward for service to a person with no higher degree than the M.A., but in such cases it is a terminal rank. More women than men hold such assistant professorships. Because rank predicts salary so strongly, it tends to obscure the effects of other variables. Therefore, men and women are equated on credentials, productivity, and market level of entrance rate for the department, without including rank. Step-wise analyses were then done.

At SMU, about three-fourths of the women had salaries markedly below those of men with corresponding credentials and productivity. In general, the salaries of individual women ranged from 5% to more than 50% less than the average for comparable men. Holding constant variables other than sex that accounted for more of the variance than sex, the average differences by sex that remained ranged from 11% to 54% lower for women.

When one category of workers is in contact with the entire labor market and another group is not, salary difference will develop. This may be very important in the case of women who are geographically tied because of the jobs of their husbands.

Among faculty with degrees from lower ranking schools and with lower productivity, women's salaries averaged 11% less than men. In fields with lower entrance salaries and considering those with six or fewer years in present rank, women's salaries were 18% lower than men's.

No bibliography appended.

Robinson, Lora H., "Institutional Variation in the Status of Academic Women," Academic Women on the Move, eds. Rossi, A. and Calderwood, A., Russell Sage Foundation, New York, N.Y., 1973.

Descriptors: Faculty, Academic Rank, Fields of Specialization

Type of material: Research study

Subject matter: Status of women faculty

Population: 125 institutions of higher education

Date: 1972 update and expansion of author's 1971 reports for ERIC Clearinghouse on Higher Education

Method: Institutional reports were obtained from 125 institutions of higher educations. Some reports cover more than one institution so that data actually represent 145 schools. Few reports covered all nine status variables in identical fashion; therefore, sample size varies by topic or attribute of status.

Major variables: Institutional and departmental participation rate, rank, initial appointment, promotion, tenure, salary administrative activities; some data exist only for women faculty, some for both men and women.

Findings: The national average of women on faculties was 20 percent. Nationally, 2.6 percent of all college and university faculty members are full professors, 20.7 percent are associate professors, 28.3 percent are assistant professors, and 19.9 percent are instructors. This was the most common procedure used to evaluate women's representation in a university. The most common method to determine departmental participation was the percentage of women among doctorates granted in the departmental field. Seventy-seven percent of the 354 surveyed departments fell below the national figure. In only three fields--education, music, and speech--were the number of departments employing women above the nationwide rate equal to or greater than those employing women below the nationwide rate. The institutional reports demonstrate systematic exclusion of women both in their overall proportion of total faculty and in selected departments. Woman's representation on college faculties varies also with the type of institution and sex composition of the student body.

If one assumes this distribution represents the way ranks should be divided, the percentages of women are discrepant at all levels but that of associate professor. Women are below national percentages in the top ranks and well above that figure in the rank of instructor.

31 references and bibliography
Appendix of 125 Institutional Data Sources

Ross, Dorothy, "A Modest Beginning and a Modest Proposal," Women in Higher Education, Furniss, W., and Graham, P., eds., American Council on Education, 1974, Washington, D.C., pp. 99-104.

Descriptors: Career Development, Fields of Specialization, Employment Opportunities

Type of material: Brief discussion of the compilation and use of a roster of professional women historians by an Assistant Professor of History, Princeton University.

Findings: The American Historical Association with a membership of 19,000, about 2,000 of them women, established a committee to eliminate sex discrimination in the profession and hired a full-time woman historian to serve as director. One of its projects was to construct a roster of women historians to inform departments of available, qualified women. (The roster serves non-member women historians as well as members.)

Work began in the fall of 1971 and by May 1972 there was a working list of 1,400 women. By June notice of 100 positions had been received; from these, 10 jobs were filled. Several departments reported that the list was useful as a reference even though it was not directly used for job placement.

Because jobs were listed nationwide, many women began to consider, for the first time, seeking jobs outside of their own colleges or universities elsewhere in the country. Even if all jobs are in the future openly announced, it is planned to continue the roster as a service. A multi-discipline roster, if developed, could better serve the talent pool of women. Many problems are yet to be solved, but in the meantime the "makeshift" effort will continue.

No bibliography appended.

Rossi, Alice, "Discrimination and Demography Restrict Opportunities for Academic Women," College and University Business, February 1970, pp. 74-78.

Descriptors: Discriminatory Practices, Postsecondary Education, Sex Roles

Type of material: Commentary based on the author's research on career opportunities for academic women. The author is a professor of sociology at Goucher College; her research has been supported by the National Institute of Mental Health.

In reviewing the status of women professionals in American educational institutions between 1930 and 1960, percentage gains have been greatest in higher education (360 percent) and least in elementary schools (36 percent). The rise was not as great as the percentage rise for men. The expansion of part-time faculty has given many women a precarious foothold in academia as part of an expendable labor supply during the period of major academic expansion of the 60's. In the 70's, in a buyer's market, the need for a Ph.d. will be increased, and the opportunities decreased. Rossi predicts increases in participation by both young and childless women as well as by middleaged mature women who are likely to be successful and, hopefully, will have the necessary self-confidence based on experience derived from their early years, since they will face a variety of ego-depressing experiences to reach their goals. Women will face resentment of the higher syle of life that a joint household of career people can enjoy. Department chairmen may discriminate in hiring because of their inability to distinguish between women applicants and their own homemaker wives. The author questions the traditional use of quantity vs. quality in judging published articles and books as measurements of academic productivity and recommends that universities establish standards and assess quality. The impact of having young married women on the teaching staff as models for the younger generation of women students should not be underrated.

No bibliography appended.

Rossi, Alice S., "Women in Science: Why So Few?" in Safilios-Rothschild, C., Ed., Toward a Sociology of Women, Xerox College Publishing, Lexington, Mass., 1972.

Descriptors: Career Choice, Post Secondary Education, Sex Roles

Type of Material: Literature survey

Population: Professionally educated women in science

Date: Literature published between 1951 and 1970, most between 1960-64.

Discussion: The position of women in science has worsened between 1950 and 1960; in five science fields (biology, chemistry, geology/geophysics, mathematics, and physics) and in engineering the presence of women has declined. Women in science are less likely than men to have advanced degrees (especially the Ph.D.). They are also likely to earn less, and to work shorter hours. They are twice as likely as men to be employed in educational institutions, and it is probable that educational institutions have learned to make more extensive use of part-time workers than has industry.

The withdrawal rate from professional science careers is much higher for women than for men, and a study of the class of 1961 showed no new trend towards more women entering science careers nor any trend toward decreased withdrawal. Reasons for this include: the priority (especially for upper middle-class women) of marriage before career. Though women are developing more liberal views, these are rarely reflected in actual behavior. After career interruption, return to work is likely to be at a comparatively low level (e.g., as assistants, technical writers).

New attitudes toward the maternal role may help more women decide to engage in full-time careers: the mother's employment does not appear to have an adverse effect on the children, provided alternative care is good and readily available and the family attitudes toward the women's working are positive; a working mother appears to be a good teacher for her child and constitutes a positive example of feminine competence.

Qualities of outstanding scientists are intelligence, persistence, independence, and aloofness: qualities not generally developed in women, yet young girls show as much scientific and mathematical ability as boys. Not until the high school years do the sexes diverge. Therefore, family and social training must account for a considerable amount of this difference.

Recommendations: educate both boys and girls for more roles than those of spouse/parent; stop restricting goals and aspirations of girls to the "realistic;" modernize approach to homemaking tasks; and encourage men to become more articulate and supportive of women's career ambitions.

A list of 32 references is appended.

Roussell, Frances C., "A Comparative Study of Teachers' Attitudes Toward Men and Women Department Heads in Large City Secondary Schools," Doctoral Dissertation, University of North Carolina, Chapel Hill, N.C. 1972.

Descriptors: Administrative Personnel (Elementary and Secondary), Attitudes of Administrators, Secondary School Teachers

Type of material: Research study

Subject: Teacher attitudes toward men and women department heads

Population: Sample drawn from high school department heads and teachers in the Dade County (Florida) school system.

Date of Research: Tests and questionnaires administered October and November, 1970.

Method: Sample: As all Dade County secondary school principals were men, necessary to use middle-level administrators. Chose to use department heads in the four departments having largest enrollments (English, mathematics, science, and social science); 10 of 17 senior high schools cooperated in study of 40 department heads, 25 were men, 15 women. In each department six teachers (3 men, 3 women) chosen at random.

Questionnaires: Department heads sent brief questionnaire asking for rating of their perception of their own influence in departmental decisions; principals and assistant principals asked to rate department heads on aggressiveness and suggestibility; teachers asked to report their perceptions of the department head's influence, and of other variables relating to the performance of administrators, and to fill out the Organizational Climate Description Questionnaire. (OCDQ).

Multivariate correlation analysis used to show relations between criterion variables (the 8 OCDQ subtests) and predictor variables (personal characteristics, aggressiveness, suggestibility, and professional knowledge).

Problem: Are there pertin~~a~~ent differences in the climates of departments headed by men and those headed by women?

Findings: The women department heads in the sample were older on average by ten years; had ten years more experience in education, and had been 2.6 years longer in present jobs.

There was very little difference in men and women department heads' perception of their own power and little difference in their teachers' perception of the department head's power. Teachers did not see sex of department head as important consideration.

There was no significant difference in perception (by sex) of department heads' traits of aggressiveness, suggestibility, or professional knowledge, but at levels less than significance men were perceived as having more power and as having stronger personality traits. Women department heads who perceived themselves as having considerable power were rated as "aggressive" by others.

Departments headed by men were seen as having more "intimacy" and "esprit"; those headed by women as having more "hindrance."

Differences in attitudes of teachers by sex to department heads by sex was not testable because of small numbers, but there appeared to be little clear difference except in 3 of the 40 departments. Men may be seen as more task-oriented and women as more considerate, but the finding is not at significant level.

A bibliography of 83 items is appended.

Rumbarger, Margaret, "Internal Remedies for Sex Discrimination in Colleges and Universities," Academic Women on the Move, eds. Rossi, A., and Calderwood A., Russell Sage Foundation, New York, N.Y.. 1973, pp. 425-438.

Descriptors: Grievance Procedures, Postsecondary Education

Type of material: A brief statement of the work of the American Association of University Professors (AAUP), especially its Committee A on Academic Freedom and Tenure, and Committee W on the Status of Women in the Profession (reactivated in 1970 after its discontinuance in 1928), followed by a discussion of principles and procedures for handling grievances. The author is Associate Secretary of the AAUP and staff advisor to the Association's Committee on the Status of Women.

Findings: The author outlines some principles governing grievance committees within colleges and universities which handle complaints of sex discrimination. An integrated grievance committee can often serve as an important mechanism for informing the men of the faculty community of the problems faced by academic women.

A "grievance" is defined as any circumstance a faculty member feels detrimental to her or his professional career. Some universities are becoming aware of the problems of sex discrimination and are willing to work toward their resolution by using grievance committees as one means.

Grievance procedures, no matter how soundly formulated, are not of themselves sufficient to get to the root of the problem of discrimination, particularly those aspects of discrimination which have been permitted to exist unchallenged for generations.

General guidelines for setting up and using such committees are described in the article.

References include nine AAUP Reports and seven other references.

Sandler, Bernice, "Backlash in Academe: A Critique of the Lester Report", Teachers College Record, Vol. 76, no. 3, February 1975, pp. 401-419.

Descriptors: Affirmative Action, Higher Education

Type of Material: Critique

Date: Published February 1975

Method: A critique of the Lester Report (Antibias Regulation of Universities, Carnegie Commission on Higher Education, 1974) based on the author's experience, on statistical and research studies, laws and regulations relating to sex discrimination, and on court cases and decisions.

Substance: Richard Lester's Report for the Carnegie Commission on Higher Education (not endorsed by the Commission) typified some of the confusions and objections raised by various federal antidiscrimination laws and regulations. His book, (lacking supporting data and containing inaccuracies) is based on the premise that affirmative action requires preference, and that preference works to the detriment of merit. Though he is convinced merit controls hiring in academe, no other industry has had so many charges of sex discrimination leveled against it. More than 500 institutions have been charged under Executive Order 11246, about 1600 under Title VII of the Civil Rights Act, perhaps 1000 under the Equal Pay Act, and others under Title IX of the Education Amendments of 1972.

Preference in hiring on the basis of sex, race, or ethnic origin is against the law, nor is there evidence of such preference. Between 1968 and 1973, minority faculty employment increased from .7 percent to 2.9 percent, that of women from 19.1 to 20 percent; in some institutions the proportion of women faculty actually dropped.

Affirmative action aims at ending discrimination and remedying the effects of past discrimination; goals in hiring, aligned with the supply of qualified women and minorities, are targets not quotas and intend to eliminate preference not to create it. Employers should be able to demonstrate 1) a genuine good faith effort to recruit women and minorities, 2) specification of job-related objective criteria before hiring, and 3) equal application of criteria.

There are differences between court-ordered actions and the goals set by the Executive Order, and the court actions have not been applied to academia. Under the Executive Order, goals are set by the institution and the best-qualified person may be hired. In a court situation, the federal government sets the goals, and only in a court situation may a less-qualified person be hired.

Understandably, administrators are concerned about federal "interference" in hiring, but academic hiring policies are too often intuitive and subjective. Specific criteria must be developed; the government does not set the criteria but does expect them to be related to the job.

Lester stresses the limited supply of women and minorities but gives little attention to those already qualified; he notes women need leaves for child-rearing but not that many academic women are unmarried or childless--notes that women publish less but not that married women Ph.D's publish more.

Lester's suggestion of arbitration to handle charges of academic discrimination has the problems of the large number of cases likely to be brought, and the definitions of the rights and obligations of the contending parties.

Affirmative action is coming under criticism partly through poor administration and partly through misunderstanding. Despite complaints, no institution has had funds withdrawn or contracts delayed because of discrimination--though some have had delays because of the lack of a plan . . . and "not one charge of a pattern of discrimination filed with HEW has ever been refuted."

No bibliography; 16 references are given.

Sandler, Bernice, "A Little Help from our Government; WEAL and Contract Compliance," Academic Women on the Move, eds., Rossi, A., and Calderwood, A., Russell Sage Foundation, New York, N. Y., 1973, pp. 439-462.

Descriptors: Affirmative Action, Grievance Procedure, Postsecondary Education, Discriminatory Practices

Type of Material: Description of the Women's Equity Action League's use of Executive Order 11246 and 11375 to combat discrimination on basis of sex by an Executive Associate with the American Association of American Colleges and past chairperson of Action Committee for Federal Contract Compliance of WEAL.

In 1969, the Women's Equity Action League started to utilize Executive Order 11375 to combat sex discrimination in educational institutions. The Women's Equity Action League asked the Department of Labor to investigate admission quotas to undergraduate and graduate schools, discrimination in financial assistance, hiring practices, promotions, and salary differentials. This investigation resulted in over 360 formal charges against colleges and universities made to Office ~~of~~ for Civil Rights. The Department of Health, Education, and Welfare (HEW) refers the complaints to one of HEW's regional offices where delays in investigation may range up to one year. Institutions may not be notified that a complaint has been filed against them until a few weeks prior to the investigation. The institution in question must provide HEW with a list of employees by race, sex, ethnic origin, status, and rate of pay, a copy of a written affirmative action plan detailing actions being taken to guarantee equal employment, copies of tests and other criteria used in making selections for employment, and copies of all manuals that describe matters affecting employment or treatment of employees. At the completion of the investigation, a "letter of findings" is given to the institution. The institution must make a written commitment to correct deficiencies and submit an acceptable written plan within thirty days. HEW can delay awarding new contracts if they find that the institution is in noncompliance. Failure to meet a goal does not automatically signify noncompliance provided that good faith efforts can be documented. (Plans from both Harvard and Tufts were deficient due to the fact that neither school developed goals and timetables for women but only for male minority groups.)

More charges have been filed with HEW concerning sex discrimination than those of all minority groups put together. Yet there are few women on the professional staff of HEW and none in policy-making positions. Nevertheless, some changes have begun to be made throughout the academic community. The universities of Wisconsin, Maine, and Maryland have allocated special funds for faculty women. Rules for part-time employment have been revised and anti-nepotism rules have been eliminated or rewritten in some large universities. New legislation has been added. The 1972 Amendments to the Education Act forbid discrimination in all federally assigned education programs, extend the Equal Pay Act to cover faculty and other professional employees, and give women further support in their effort to attain equality in institutions of higher education.

Title VII has also been amended to include employees of state and local government; thus faculty women in both public and private institutions are now covered.

The author expresses the belief that affirmative action is the only remedy that is oriented toward changing institutional structures, and it is change on this fundamental level that will be essential if sex discrimination is to be eliminated in academe.

No bibliography appended.

Schiller, Anita R., "The Widening Sex Gap," Library Journal, Vol. 94 No 6, March 15, 1969, pp. 1098-1100.

Descriptors: Libraries, Salaries, Sex Stereotypes

Type: Research Study

Subject: Salary and status of academic librarians

Population: Sample drawn from professionals employed in libraries of higher education institutions

Date: 1966-67

Method: Based on a two-staged stratified probability sample, approximately one out of every five professionals employed in libraries of higher education institutions was selected to receive a mailed questionnaire. High response rates (95% of 580 institutions sampled in stage I, and 93% of 2,459 full-time professionals sampled in stage II) resulted in a representative sample of librarians in institutions of varying type, size, and means of control.

Major variables: Salary differentials, age, number of years of professional experience, position level and faculty rank by sex; also comparisons made on the basis of professional education.

Findings: Of the 2,282 full-time employees who returned the questionnaire, 64 percent were women. Women had a higher median age and more years of professional experience. Although the number of chief librarians was divided equally between men and women, the libraries that women administer are smaller and the salaries lower. The relative status of women librarians has declined; in 1930, 19 of the chief librarians of the large colleges and universities were women; in 1967, only four of these libraries had women chief librarians. Men librarians who are not chief librarians do as well as women who are. Roughly half hold academic rank; women are more likely to be instructors, while men are more likely to be professors. Men earn more than women at all levels of professional experience, but the differential is much greater at the higher level than at the lower. This is particularly noteworthy for those with ten or more years of experience and with equivalent educational qualifications.

One out of seven women academic librarians has left library work for six months or more for family responsibilities, at a point in her career when she was just becoming established. Marital status and personality characteristics have been used repeatedly to justify the failure of women to be promoted. Although it is women who are considered unstable, men are more likely to leave their positions for other opportunities than women, and those who are mobile earn more than those who are not.

Women have been too willing to allow various rationalizations to serve as legitimatization of discriminatory practices. The library manpower shortage has highlighted the need to utilize all professional resources, particularly women, to their full potential.

Eight references and footnotes appended.

Schlossberg, Nancy K., "The Right to be Wrong is Gone: Women in Academe," Educational Record, Fall 1974, pp. 257-262.

Descriptors: Discriminatory Practices, Postsecondary Education, Sex Stereotypes

Type of material: Commentary by a professor of education at the University of Maryland, formerly director of the Office of Women of American Council on Education.

Findings: Women must cease to accept stereotypes of their own roles. The author notes that women are "filtered out" of the educational system at various points; women comprised 47% of entering freshmen in 1973; 39% of resident graduate students (1972); and 27% of faculty members at higher educational institutions (1971-72), where they were concentrated at lower untenured levels and made lower salaries. They continue to encounter obstacles with regard to admissions, financial aid, curricular choice, career opportunities, pay, promotion, and retirement benefits. Institutional barriers are reinforced by internalizing social attitudes and norms. Even clinicians judge women by sex stereotypes perceiving them as "less healthy" to the extent that they differ from the healthy man. Married women have a higher dropout rate than do single women, showing their acquiescence in the home-maker role.

Women have fewer role models to provide models of career success. Tidball's study showed that women of higher achievement were likely to have attended women's colleges where there were many women faculty. Another study showed that women are expected to support their husbands' careers whether or not it is convenient or pleasant. Men are much less likely to be expected to lend such support to their wives.

In working to change their status, academic women move through four stages. The first two--consciousness raising and presenting grievances--cause little trouble. The next stages--filing grievances with outside agencies and becoming politically active--can cause serious conflict with administrators at their institutions. Women must be suspicious of claims of fairness when they continually see evidence of discrimination; administrators faced with their protest will be uneasy. At attempt at imagined role reversal might at least further understanding.

Nineteen references are included.

Schlossberg, Nancy K., Shavlik, Donna, and McBride, Nancy, "Equal Benefits in Retirement--A Case for Equity," Office of Women in Higher Education, American Council on Education, mimeographed, Washington, D.C., January 14, 1974.

Descriptors: Fringe Benefits

A policy statement from the Office of Women in Higher Education by Nancy K. Schlossberg, Director; Donna Shavlik, Assistant Director; and Nancy McBride, Administrative Secretary.

Discussion: The Teachers Insurance and Annuity Association and College Retirement Equities Fund (TIAA-CREF) covers some 334,000 persons in 2,368 institutions in the United States and Canada. Because of dual mortality tables based on the actuarial finding that women live longer than men, women covered by the plan receive smaller monthly benefits. The Equal Pay Act as interpreted by the Wage and Salary Administration of the Department of Labor finds the employer in compliance with the law as long as equal contributions have been made to the fund. The Equal Employment Opportunity Commission (EEOC) breaks with this standard and condemns pension or retirement plans which differentiate in benefits on the basis of sex.

As the laws were written for the protection of employees, the "proper vantage point is that of the employee's interests." According to the TIAA-CREF report of mortality experience from 1965-70, 53% of women participants did not live the average life expectancy of men; only 25% of the women lived to collect the hypothetical "equal total benefit."

As the nature of insurance makes predictions and assigns risk on the basis of group experience, the division of a pool of individuals into two groups on basis of sex tends to destroy the group risk-sharing that is the essence of insurance. The TIAA-CREF plan, thus, seems to punish women for theoretically living longer. The average women would then have to live at a lower standard as "there is absolutely no evidence that the cost of living will be less for a woman than for a man."

Generally, industrial plans, as well as state teachers' retirement plans, have provided equal benefits for both sexes. Also, the life insurance policies provided by most TIAA-CREF member institutions reveal a higher cost for the coverage of men than for women.

"The Office of Women in Higher Education believes that the quest for legal equality and social equity demands the development of a new pension system which will provide equal periodic benefits for men and women in retirement."

No bibliography is appended.

Schmalzried, Beverly, "Day Care Services for Children of Campus Employees," Women in Higher Education, Furniss, W., and Graham, P., eds., Washington, D.C., American Council on Education, 1974, pp. 140-144.

Descriptors: Child Care, Postsecondary Institutions

Type of material: Comment by the Chairman, Human Development and Family Living, Stout State University, Wisconsin.

Day care centers are needed on campus by several groups. Graduate students families need inexpensive facilities and may require help with medical, nutritional, and similar matters. Staff requires care that extends through the working day, which would include such services as meals and snacks. Faculty require high quality service and can pay more for it. They would need more flexible arrangement--including occasional round-the-clock care as, for example, when academic couples attend professional meetings.

The child-development laboratories of many universities make good bases for developing child-care centers. Planning must take into account the need for funds and the likelihood that government money will not be easily available. Nor is it wise to depend to heavily on volunteer help. The universities and colleges could at least help to locate good facilities for the use of their students and staffs.

No bibliography appended.

Seawell, William H., and Canaday, Robert L., "Where Have All the Women Gone?," National Elementary School Principal, Vol. 53, No. 4, May/June 1974, pp. 46-48

Descriptors: Elementary and Secondary School Principals, Attitudes of Teachers

Type of material: Literature review and survey report

Subject matter: The decline of women in the position of elementary school principal.

Population: Women in administrative positions in public schools

Date: Literature review was published between 1965 and 1973, plus a brief report of the author's 1969 study of the elementary school principalship in Virginia.

Method: Not detailed in this report.

Findings: Studies (Hoyle's in Texas, Morsink's in Michigan and Gross and Trask's in Massachusettes) refute the argument that women should not be appointed to the principalship because of lack of competence as administrators. Yet the number of women principals has been steadily declining. This is shown by the National Education Association (NEA) study of the elementary school principalship in 1968; the NEA study of professional women in the public schools in 1971, and by studies of the principalship in Michigan (Jennings, 1972) and in Wisconsin (Magestro, 1973). These findings are further supported by the Seawell and Spagnolo study of the elementary school principalship in Virginia (1969).

Women principals (in the nation as well as Virginia) tend to be older than the men, and to have spent more time as classroom teachers (9% of the men compared to 66% of the women had 10 or more years of classroom teaching). More than 27% of the men compared to 6% of the women had nine years of experience or fewer; men therefore appear to enter the principalship at an earlier age than women.

Men appear not to have prepared specifically for the elementary school principalship as 3% of the men compared to over 50% of the women had majored in elementary school supervision, administration, or curriculum. Women principals also devoted more time than the men to professional growth activities, tended to be more active in selecting instructional materials, and to work cooperatively with faculty to determine instructional procedure.

Women perform at least as well as men in the principalship but they are not being selected on the same bases as men to fill these positions. The expansion of Title VII of the Civil Rights Act of 1964 to cover educational institutions may expand the number of women educational administrators, if women teachers sue for the right to assume the principalship in their respective schools. However, women should be promoted because they are fully capable of performing well.

A list of six references is appended.

Sells, Lucy W., "Sex Differences in Graduate School Survival," paper presented at the annual meeting of the American Sociological Association, New York, N.Y., August 28, 1973, 14 pp.

Descriptors: Doctoral Dropouts, Sex Stereotypes, Attitude of Faculty

Type of Material: Secondary analysis of Carnegie study and pilot project.

Subject: Dropouts among women doctoral candidates

Population: Women doctoral candidates at the University of California, Berkeley.

Date: Not given

Method: Not stated in detail. Secondary analysis of the Carnegie 1968-69 survey of faculty and graduate students in United States colleges and universities, and a pilot study of women graduate students conducted at the University of California, Berkeley, consisting of two parts: an eight week series of two-hour sessions in which groups from a variety of disciplines tried to articulate problems which faced women graduate students, and to work out solutions for them. Non-participants were sent a questionnaire. (Numbers in sample and of respondents are not given.)

Findings: A national survey of 1950-53 post-master students found a sex difference of 20 percentage points in completion of the doctorate (men 65%, women 45%; Tucker, Gottlieb, and Pease, 1964). The same differential was shown in Mooney's study of Woodrow Wilson Fellows, and in the records of U.C., Berkeley, (for 1962 entering doctoral candidates).

The discussion sessions at Berkeley of reasons for the high dropout rate for women fell into three major categories: factors beyond the control of students or faculty (decline in funding, rising costs, declining job market); factors within the control of faculty: lack of women as role models on faculty, poor advisory procedures, exclusion of women from informal communications networks, from apprentice or collegial relationships with faculty, indifference of faculty; and the confusion resulting from lack of information about criteria for evaluation, and about flunking, success, job possibilities, etc. Factors within the control of students: recognition that what most graduate women had thought to be personal problems were actually shared by most women graduate students. These were problems identified as psychological and social. Psychological problems: lowered self-confidence and self-esteem; ambivalence about conflicting demands of career and personal life and between teaching and research interests, and alienation arising from feelings of powerlessness. On the sociological level, problems arising from the infantilization and demoralization caused by faculty attitudes and the uncertainty of the students. This problem is confirmed by the

Carnegie findings on faculty attitudes toward the seriousness of students, and student perception of faculty attitudes. Both the Carnegie respondents and the Berkeley group agreed that students (and especially women students) feel the lack of a constructive apprentice or collegial relationship to faculty.

Notably, with the growth of women's caucus activities at Berkeley, the percentage differential in dropout rates between men and women doctoral candidates has decreased from 20 percentage points in 1962, to 11 in 1966 to none in 1968.

No bibliography is appended.

Sigworth, Heather, "Issues in Nepotism Rules," *Women in Higher Education*, Furnisse, W., and Graham, P., eds., American Council on Education, Washington, D.C., 1974, pp. 110-120.

Descriptors: Anti-Nepotism Policies

Type of Material: Analysis and comment by an attorney, formerly Project Coordinator, Project on Criminal Instructions, Committee on Uniform Jury Instructions of the Supreme Court of the State of Arizona.

Discussion: The California Supreme Court and the federal first circuit have invalidated state laws imposing nepotism rules as a condition of employment; a public educational institution testing them would have to show it had "compelling reason" to enforce such a policy against an individual. These rules have seemed, in effect, to prohibit the hiring of faculty wives for substantive positions while permitting them to be hired as part-time, lower status, or unprofessional jobs.

The Department of Health, Education, and Welfare has maintained that exercise of nepotism regulations amounts to de facto discrimination. There seems to be a movement to treat sex as a "protected classification" similar to race. If the Equal Rights Amendment is passed, these questions will become moot. The legal issue is whether or not there is in fact discrimination, and the evidence tends to demonstrate that there is.

Administrators claim legitimately that their function is to hire the best possible person, but hiring rests heavily on mobility and reputation where women can least easily compete.

To educate women for independence of mind may threaten the basis of monogamous marriage and the general institution of the family, but to train women and then prevent them from exercising skills and pursuing careers is illogical and wasteful. Administrators must choose between being "comfortable and traditional" or taking "credible and legal" positions on the role of women in our society.

Some 50 court cases, articles and reports are cited.

Sigworth, Heather, "Legal Status of Antinepotism Regulations," American Association of University Professors Bulletin, Vol. 58, Spring, 1972, pp. 31-34.

Descriptors: Anti-Nepotism Regulations, Postsecondary Education, Discriminatory Practices

Type of Material: Analysis and review of relevant court cases by an attorney who is an assistant professor at the Indianapolis Law School.

Findings: Those adversely affected by antinepotism regulations are nearly always women leaves such rules open to attack as de facto sex discrimination. A state university cannot exclude qualified women students when exclusion would force a choice between discontinuing either their education or their marital relationships. With reference to antinepotism rules, the question arises if it is an impermissable invasion of privacy to prohibit the employment of a qualified person who is married to another employee and thus force a choice between marriage and profession. Marital privacy is more firmly based on the authority of the United States Supreme Court than are merely personal privacy rights. (The court struck down an anti-contraceptive law because it specifically interfered with the marital relation.) In sum, if a substantial interest other than the interest in state employment is affected by state regulation--especially if a protected constitutional right--then the state must show a more substantial interest in continuing to enforce the regulation. If the refinements of the race principle were applied to cases where sex discrimination is alleged, antinepotism regulations would "also be recognized as creating a prohibited classificaiton based on sex."

HEW regards antinepotism rules as sex discrimination, and though these federal policies may not be enforceable in court against a university, tyen indicate the direction the law is taking. It is not clear whether sex discrimination is prohibited in the constitution in the same way as is race discrimination, but "if a court could be persuaded to treat sex classifications as constitutionally suspect, it would almost certainly hold antinepotism rules invalid."

References to 30 court cases are given.

Sigworth, Heather, Paper Prepared for Panel Discussion on Issues in Nepotism Rules, Committee on Uniform Jury Instructions of the Supreme Court of the State of Arizona, October 6, 1972, 11 pp.

Descriptors: Anti-Nepotism Policies, Postsecondary Institutions

Type of Material: Comment and analysis by an attorney, formerly Project Coordinator, Project of Criminal Instructions, Committee on Uniform Jury Instructions of the Supreme Court of the State of Arizona.

Discussion: The only real legal issue now involved in the consideration of anti-nepotism policies is whether they do in fact discriminate, and many reports show that these policies, some of them informal, keep women from work that they are qualified to do.

Anti-nepotism policies are widespread: a survey done in 1959-60 by the American Association of University Women showed that 18 percent of institutions surveyed had informal anti-nepotism regulations, and 26 percent had formal ones. Of 42 land-grant colleges replying, 74 percent had written restrictive policies; most of these only prohibit employment in the same department, but other schools have restrictions of varying kinds and degrees. Since faculty couples are likely to be trained in the same field or in closely related fields (from about half to two-thirds, according to Astin's survey), and up to 96 percent of women Ph.D.'s at Berkeley), this is no trivial restriction.

Thus, it can be argued that anti-nepotism roles discriminate by sex in fact, in civil rights law, and in traditional family law, uniquely disadvantaging married women. Such rules are incompatible with the aims of women's education and the requirements of settled monogamous marriage.

34 references are appended.

Simon, Rita J.; Clark, Shirley M.; and Galway, Kathleen, "The Woman Ph.D.: A Recent Profile," Social Problems, Vol. 15, No. 2, Fall 1967, pp. 221-236.

Descriptors: Doctorates, Women's Working Patterns, Productivity, Salaries

Type of Material: Research Study

Subject: Career patterns of women Ph.D.'s

Population: Women who received the doctorate in physical and natural sciences, social sciences, humanities, and education between 1958 and 1963

Date: Not Stated

Method: Of a universe of 5,370 women Ph.D.'s (in specified time period), 93% were contacted through mail and about 60% of these returned questinnaires. Sample of men for comparison, one-third the number of women: 1,787 selected, 1,700 sent questionnaires and about 60% returned questionnaires.

The paper investigates the professional situation of women Ph.D.'s--single, married, married and having children--comparing the three groups to each other and to the sample of men. The major variables: employment situation (type, place, length of employment, income, rank), productivity (number of books, articles, research grants, consulting work), recognition (honorary societies, fellowships, travel grants), and professional identification (society memberships, offices, committees, subscription to journals).

Findings: Over 95% of the men compared to 50% of the women are married; nearly all the unmarried women and 87% of married women work full-time; 60% of married women with children work full-time. Unemployment is more likely to exist because of child rearing than lack of work opportunities. (The characteristics of the women who work part-time are not reported here).

Unmarried women are more likely than men to work at colleges rather than at universities in the fields of sciences and social sciences; there is no great difference by sex in the humanities or in education. Salary differences exist between men and women but are notable only in the field of education; overall the differential is about $700 in favor of men. Men are more likely to be tenured and to hold higher rank than women. Unmarried women most nearly resemble the men; married women are least likely to hold higher rank or tenure.

The major finding related to productivity: married women publish as much or more than men; unmarried women publich slightly less than men. In social science and humanities, men are more likely to have received a grant. Women were more likely to have received fellowships and election to honor societies. Unmarried women are more likely to serve on committees and to hold offices in professional organization than are men or married women.

These data do not support the contention that women cannot have a normal professional career, but it is possible that women are often denied many of the informal signs of belonging and recognition.

No bibliography; 11 references cited.

Simon, Rita James, Clark, S.M., and Tifft, L.L., "Of Nepotism, Marriage and the Pusuit of an Academic Career," Sociology of Education, Vol. 39, No. 1, Winter 1966, pp. 344-358.

Descriptors: Anti-Nepotism Policies, Postsecondary Education

Type of Material: Research report

Subject: Effect of anti-nepotism rules on academic women's careers

Population: Women Ph.D.'s receiving the degree between 1957 and 1963 in natural and biological sciences, social sciences, humanities, and education

Date: Not stated

Method: Of 5,370 women receiving the Ph.D. in the specified time and fields, 4,998 (93%) were located and sent questionnaires. A sample of men (about one-third that of the women) selected for comparison; of 1,787 selected, 1,700 were located and sent questionnaires. About 60% of both groups responded.

The major problem of the study was to assess the productivity of educated women, and questions on nepotism were included to assess its impact on productivity.

Background: The American Association of University Women conducted a survey for the academic year 1959-60 of 363 public and private institutions, 285 (79%) of which responded. About 26% said they had anti-nepotism regulations; 18% had no written regulations, but had some restrictive practices; 55% had no such practices. Schools with smaller enrollments and private universities were less likely to have such regulations than larger or publicly supported institutions.

Schools that admitted restrictive practices without specific anti-nepotism regulations discriminated against the second family member in one or more of the following ways: full faculty status or tenure was withheld, giving the employment of wives the character of "temporaries;" married women were hired as stopgap faculty rather than as career personnel; employees of the same family exercise only one vote in policy decisions; and fringe benefits, retirement and medical insurance plans, sabbatical leaves, etc., were denied.

Findings: The author's study showed half the women in their sample to be married; 28% were married, but to husbands not employed in academic institutions. Of the remaining 22% married to academic men, slightly more than one in three claimed they were affected by anti-nepotism regulations.

The researchers found that anti-nepotism rules are not effective or important bars to entry into the academic market, although they may restrict entry into specific positions at certain institutions.

Married women as a whole, including those who do not see themselves victims of discriminatory practices, receive lower salaries, lower ranks and are less likely to be granted tenure than unmarried women or all men. Women who claim that their careers have been hurt by anti-nepotism regulations are in reality treated no differently than other married women. They are, however, significantly more productive than other women, married or unmarried, and are as productive as men. They are therefore less willing to accept the lower rewards and lesser recognition that the majority of married women who are employed at colleges and universities have come to accept as a basic attribute of their employment.

Five references are listed.

Simon, Rita James, and Rosenthal, Evelyn, "Profile of the Woman Ph.D. in Economics, History, and Sociology," Journal of the American Association of University Women, Vol. 60, No. 3, March 1967, pp. 127-129.

Descriptors: Doctorates, Women's Working Patterns, Productivity, Salaries

Type of Material: Research study

Subject: Career patterns of women Ph.D.'s

Population: Women who received the doctorate in physical and natural sciences, social sciences, humanities, and education between 1958 and 1963.

Date: Not stated

Method: Of a universe of 5,370 women Ph.D.'s (in specified time period), 93% were contacted through mail and about 60% of these returned questionnaires. Sample of men for comparison, one-third the number of women: 1,787 selected, 1,700 sent questionnaires and about 60% returned questionnaires.

The study investigates the professional situation of women Ph.D.'s--single, married, married and having children--comparing the three groups to each other and to the sample of men. The major variables: employment situation (type, place, length of employment, income, rank), productivity (honorary societies, fellowships, travel grants), and professional identification (society memberships, offices, committees, subscription to journals).

This paper selects women in only three of the academic fields covered by the study; it does not present the tabular data on which its discussion is based.

Findings: Career characteristics of the sample of women Ph.D.'s in economics, history and sociology are examined. Generally it was found that the women were doing the same type of work as the men, though at slightly lower ranks and for an average of about $700 less than their male counterparts. The women were more likely to be employed at colleges and the men at universities. In all three specialities, married women fared somewhat worse than unmarried women in terms of rank, though not necesarily in terms of financial reward. In each case, however, the differences between married and unmarried women were relatively small compared with the differences between men and women.

In the three fields, the men had published many more articles than had the women, though the married women were more productive than the single women. Data on books and monographs showed no clear pattern; only in history had the men published more books than had the women.

The authors suggest that the greater productivity of married women might be explained by a selectivity factor in that married women Ph.D.'s are more achievement-oriented and ambitious than unmarried women Ph.D.'s of any marital status.

No bibliography appended.

Simpson, Lawrence A., "A Myth is Better than a Miss: Men Get the Edge in Academic Employment," *College and University Business*, Vol. 48, No. 2, February 1970, pp. 72-73.

Descriptors: Attitude of Administrator, Postsecondary Education

Type of Material: Research study

Subject: Relationship between attitudes toward women and academic hiring practices

Population: Sample drawn from deans, departmental chairmen and faculty (persons likely to have a role in academic hiring procedures), of six Pennsylvania institutions of higher education

Date: Spring 1968

Method: Subjects selected from feminine-oriented academic fields: French, Spanish, English, art, and masculine-oriented fields: political science, philosophy, history in four public colleges and universities, one private women's college, and one private men's university. A total of 369 instruments distributed, and 234 (63%) usable replies returned.

The research instrument presented seven pairs of resumes (in six of the seven, pairing a man and a woman) of candidates for an academic position. Also included a somewhat disguised version of the Open Subordination of Women Attitude Scale.

Problems investigated: Do employing agents express discriminatory employment attitudes toward academic women candidates? Would they tend to prefer men or women for academic appointments? Would those who reject women candidates tend to place women in general in a subordinate position?

Findings: With all other variables equal, men candidates were preferred over women candidates; only when the woman candidate of the pair was clearly the better qualified was she chosen.

Subjects in fields with a higher employment of women selected a larger number of women candidates; subjects in fields with a low employment of women selected few women candidates, and this held true even when the woman was clearly better qualified.

Age, sex, and experience of the subjects had significant relation to readiness to hire women; rank and degree did not. The younger (under 30) and older (over 60) subjects were more likely to choose women candidates, as were those with five years or less and 20 years or more experience. Women were more likely to select women candidates than were men. General attitude toward women (positive or negative) did have a correlation to the tendency to select or reject women candidates.

No bibliography appended.

Solmon, Lewis C., Men and Women Graduate Students: The Question of Equal Opportunity, Higher Education Research Institute, Inc., and University of California, Los Angeles, California, March 31, 1975, 189 pages.

Descriptors: Admission Policies, Financial Aid, Graduate Students, Higher Education

Type of material: Research study, plus literature survey

Subject matter: Evidence of equality or inequality of opportunity for women graduate students

Population: Sample drawn from doctoral-granting institutions; also (in literature survey) samples of graduate students.

Date: Survey related to admissions, Fall 1973

Method: Deans of 85 doctoral-granting institutions, representing the universe of 240 such institutions queried on applications and acceptances of graduate students by sex. Over two-thirds returned completed questionnaires; one-half provided data by sex. Details of method not reported.

Major variables: Graduate school acceptance rates, time spent in graduate study, mobility, and awards of financial aid for men and women graduate students.

Findings: Data from the study of acceptance rates, plus literature review of studies on time spent in graduate study, geographic and inter-institutional mobility, and receipt of financial aid are analyzed to identify discriminatory and motivational factors leading to women's lower participation in graduate studies.

The length of time to obtain a doctorate is most closely related to quality of institution and subject of degree. The average age for obtaining a Ph.D. rises as the quality of the institution declines, particularly in the case of women. At wealthier institutions, men and women are receiving their doctorates at virtually the same age in virtually the same amount of time. Doctorates are completed most quickly by students in the sciences, but there are fewer women in these disciplines.

Among both men and women, length of time to attain a degree is also affected by periods of time prior to entering graduate study, part-time study, and the interruption due to other activities including marriage, childbearing and childraising (for women); military service (for men); and employment (for both).

Women do not move from institution to institution for their graduate work, any more frequently than men. It does appear, however, that in selecting institutions, women are not as mobile, do not move out of their home states as frequently, and concentrate in urban areas more often than men. Marraige appears to stabilize women rather than cause them to move excessively.

If provided with financial aid, women are more likely to remain in a graduate school uninteruppedly. Approximately equal proportions of men and women receive financial aid. Much of the observed disadvantage of women in financial aid comes through different distributions of men and women among disciplines. More men receive research assistantships, but women tend to concentrate in fields where research assistantships are rare. There was no evidence of significant differences in amount of stipends. More men, however, were willing to take out loans, and more have access to additional aid through the GI Bill.

A comparison of the status of women graduate students from 1972 to 1974 promotes confidence that women are doing better in graduate studies. There is no evidence at present that women are an underprivileged minority. Whether this finding can be attributed to affirmative action legislation, or changing attitudes in society is undetermined. It is recognized that the data only apply to women who have received a doctorate, not to those seeking the degree without success. Graduate schools should make a greater effort to recruit, financially support, and encourage women students. High schools and colleges should encourage women to obtain advanced degrees. Facilitating mechanisms could be installed in the universities to provide day-care centers, proper medical care, and special class schedules to assist women who have families. More liberal transfer of credits, reduced residence requirements, and acceptance of part-time students, even awarding financial aid for part-time work, would serve to assist women in graduate programs.

Appendix A: A content analysis for sex bias of graduate catalogs of doctoral-granting institutions (1973-74 catalogs requested; 213 of 239 institution listed by the National Academy of Sciences responded). Findings seem to indicate unconscious rather than conscious discouragement of women, though the "picture is discouraging."

Appendix B: A list of doctoral-granting institutions that provided usable data on acceptance rates.

Appendix C: A brief survey of 33 reports from specific institutions investigating sex discriminination on the individual campuses.

A bibliography of 75 items is appended.

Sommers, Dixie, U.S. Dept. of Labor, Bureau of Labor Statistics, "Occupational rankings for men and women by earnings", Monthly Labor Review, August 1974.

Descriptors: Salaries, Women's Working Patterns

Type of Material: Statistical analysis

Subject: Earnings characteristics of women and men workers during 1969.

Population: Working men and women in U.S.

Date: Occupation data collected April 1970; earnings data for 1969.

Method: Re-Analysis of 1970 census data

Data Available: Data from 1970 census on selected occupations by sex (423 occupations for men and 391 for women; 31 educational occupations of men and 29 of women) ranked by 1969 median earnings; earning decile of women and men by selected characteristics (age, educational background, employment period).

No bibliography appended

Sorrentino, Richard M., and Short, Judith A., "Performance in Women as a Function of Fear of Success and Sex-Role Orientation." mimeographed, revision of paper presented at meeting of the Eastern Psychological Association, Washington, D. C., 1973. 22 pp.

Descriptors: Fear of Success, Sex Roles

Type of Material: Research study

Subject: Relation between fear of success and test performance in women

Population: Sample drawn from women undergraduate students

Date: Not given

Method: 164 women undergraduate students at summer session, University of Western Ontario, tested in 10 sessions of 8 to 40 subjects. Four questionnaires were administered: a procedure for assessing the projective measures of n Achievement, n Affiliation, and motive to avoid success (Mas), using five cue sentences including Horner's "Anne finds herself at the top of her medical school class." (Scorer agreement correlated at .90 or above). A measure of test anxiety; an ability measure (Canadian Scholastic Aptitude score, IQ score or combined mathematics and English score for last year high school) and overall grade average last academic year. Last, a test of performance given in a feminine- and a masculine-oriented format (though the actual material was the same); half the total group received one form and half the other.

Findings: The women scoring high in motive to avoid success (Mas) scored higher in the male-oriented than in the female-oriented performance test. There was no evidence of higher anxiety in the male-oriented situation. As this is the reverse of what might be predicted from Horner's hypotheses, it is possible that measures of motive to avoid success are picking up some other factor. As high Mas women are likely to have high ability, it may be that Mas tests actually measure ability as much as they measure an inhibitory anxiety. The brighter, more inventive women wrote longer and more inventive stories about "Anne" and therefore opened more opportunity for negative responses. As male-oriented tasks are seen as more challenging, brighter women may be more interested in succeeding at them. The situation did not involve direct competition between men and women and may, therefore, have been seen as a test of competence rather than as a sex-competitive situation.

A bibliography of 17 items is appended.

Steele, Marilyn, Women in Vocational Education, Project Baseline Supplementary Report, Northern Arizona University, Flagstaff, Arizona, October 1974, 146 pages.

Descriptors: Administrative Personnel (Postsecondary), Sex Stereotypes, Vocational Education Staff.

Type of Material: Literature review

Subject: Status of women in vocational education

Date: Literature reviewed, published for the most part 1970-1974

Findings: According to a review and analysis of available data, schools at all levels are operating separate vocational education programs for women, limiting them to traditional, female-intensive low-paid occupations. Although women comprise 55.5 percent of the total vocational education enrollments and two-thirds of all secondary vocational enrollments, they are concentrated in nonwage-earning home economics and in health and office occupations, fields in which they are already overrepresented. Of the 67 professional organizations with units devoted to the status of women in their professions, only three are related to vocational education.

There are five educational disciplines related to vocational education: women comprise 96 percent of master's degrees granted in nursing education; 90 percent in home economics; 60 percent in business, commercial and distributive education; 5 percent in industrial and vocational education; and less than 5 percent in agricultural education. A contributing factor to the lack of opportunities for advancement for professional women in vocational education is that few women are seeking advanced degrees in educational administration.

In 1974, there were no women among the state directors of vocational education. Only six of the chairpersons of the state advisory councils and two of the executive directors were women. Six councils have no women, and thirty-three have one to three. Of the twenty-two members of the National Advisory Council on Vocational Education, only four are women.

The paucity of women in administration from the university level to local public schools corresponds to the paucity of women in state leadership positions. Vocational education is a power base of male educators, despite the fact that the majority of those enrolled are women.

Until female administrators increase throughout all levels of the school system, there will be few significant chances for young women in vocational education. Women must be hired to teach educational administration and those vocational technical courses that are still largely male-dominated. The supply of women qualified to serve as vocational administrators, professors of vocational education, or as staff of postsecondary technical institutes and community colleges must be increased.

Bibliography given after each chapter, 84 items in all.

Steinbach, Sheldon E., and Reback, Joyce E., "Equal Employment + Equal Pay = Multiple Problems for Colleges and Universities," draft paper, August 1974

Descriptors: Affirmative Action, Discriminatory Practices

Type of material and Subject matter: A summary of some of the problems and decisions that may confront administrators in higher education written by the Staff Counsel and Assistant Director of the American Council on Education's (ACE) Office of Governmental Relations, Sheldon E. Steinbach, and by Joyce Reback, Research Assistant, Equal Employment Opportunity Task Force of ACE and National Association of College and University Attorneys.

Findings: The Equal Employment Opportunity Commission (EEOC) will probably undertake some higher education cases to establish internal policies and judicial precedent, but these cases will not have priority. However, it is possible to foresee problems facing the higher education sector. Among them are:

Problems related to pregnancy. The EEOC position is that disabilities caused by or related to pregnancy should be treated as temporary disabilities under any health or temporary disability insurance or sick leave plan connected with employment. The EEOC guidelines consider such benefits as terms of employment; thus, it is unlawful to discriminate between men and women with regard to them. The difficulties relate to the longer life expectancy of women, so that retirement benefits (actuarially calculated) either cost more for women or pay out less to them.

Testing and validation. The U.S. Supreme Court has held that tests and other employment criteria must be related to the particular job. The EEOC has begun to construe "bona fide occupational qualifications" more narrowly; thus requirements of higher degrees generally required by college and university employees, will probably come under close scrutiny.

Seniority and layoffs: It will probably be no defense for colleges and universities that qualified faculty were not available until recently (layoffs generally being among the least senior employees).

Reverse discrimination: EEOC has determined that an affirmative action plan does not authorize an employer (a community college) to grant preferential treatment to a person based solely on race.

Use of statistics as a basis for determining discrimination: In a recent case a court held that statistical evidence of imbalance of men and women in university departments was sufficient to require rebutting evidence from the defendent institution; it is possible that courts may accept statistics as demonstrating discrimination per se. However, a U.S. Court of Appeals upheld the decision not to promote a women professor since it was "reached by correct procedures and supported by substantial evidence."

Equal Pay: The present guidelines will have considerable impact on faculty wage determination. It will be difficult to give priority to certain disciplines by offering ad hoc salaries to attract or retain certain faculty. Colleges and universities will have to devise systems which guarantee equal pay for equal merit and incorporate safeguards against discrimination. The Task Force of the American Council on Education has formulated certain principals for appointing and evaluating academic staff: 1) qualifications and procedures must be explicit; 2) qualifications should be demonstrably related to position; 3) qualifications should be related to the mission of the institution or its subdivision; 4) standards must be applied consistently to all applicants and employees; 5) the institution is entitled and obligated to choose the best qualified people.

"Equal pay for equal work" may mean that part-time employees are entitled to proportional fringe benefits. It may also mean that an institution with many part-time women employees who do not get proportional fringe benefits may be required to demonstrate that it does not discriminate on the basis of sex.

No bibliography is appended.

Stiles, Lindley J., and Nystrand, P. Martin, "The Politics of Sex in Education," Educational Forum, Vol 38, No. 4, May 1974, pp. 431-440.

Descriptors: Administrative Personnel (Postsecondary), Affirmative Action, Discriminatory Practices, Grievance Procedure.

Type of Material: Commentary by Stiles, a professor of education for interdisciplinary studies at Northwestern University, and Nystrand, an assistant professor at Newark State College, Union, New Jersey.

Findings: The authors note that women are poorly represented at the administrative level and in higher academic positions, even in those fields where the majority of Ph.D. recipients are women. They note that the Office of Education has only one woman bureau chief, and that virtually all chief state school officers were men, and that there were more likely to be a woman when the position is elective. The only trend in favor of women administrators is in decentralized operations where a small proportion of local or district superintendents may be held by women with a man in the overall superintendent's position. In all other cases, the number of women administrators is still dropping.

Legislation to assure equity (the Equal Pay Act of 1953, Title VII of the 1964 Civil Rights Act, Title IX of the Education Amendments of 1972, laws barring sex discrimination in 48 states, and Executive Order 11375) may help the situation somewhat, but only 19 percent of state departments of education have developed affirmative action plans. Most of the legislative and administrative gains have been accomplished by a few lobbying groups and the impact of the laws may be circumvented by adverse political machinations and the weight of public opinion.

But executive orders at least on the face, are requiring changes in the status of women in education. The question, however, is how rapidly equity will be achieved. Some positive signs are noted. In 1969, only three complaints were filed; a year later 350 were lodged against colleges and universities. Another trend is the increase in collective bargaining. This approach has proven very attractive to women who may distrust merit pay plans because decisions are made by male administrators. Nonetheless, men tend to control the unions, particularly at the level of higher education. Nor can women expect much from men who are fighting the battle to gain control and predominance in the teaching profession. Women must themselves work to change public opinion, and be willing as individuals to make the effort to qualify for positions in educational administration; to compete for appointments and to assume the responsibilities of leaders even at the cost of going to court when necessary.

Ultimately, greater litigative efforts by women's groups and individuals will produce effective legal protection.

Six references are appended.

Taylor, Suzanne S., "The Attitudes of Superintendents and Board of Education Members in Connecticut Toward the Employment and Effectiveness of Women as Public School Administrators," Doctoral Dissertation, University of Connecticut, Storrs, Connecticut, 1971.

Descriptors: Administrative Personnel (Elementary and Secondary), Attitudes of Administrators, School Boards

Type of Material: Research Study

Subject: School administrator attitudes toward women administrators

Population: Sample drawn from school board membership and school superintendents in state of Connecticut

Date: Data collected, March-June 1970

Method: All of the 133 superintendents in Connecticut contacted, asked to participate and to secure the cooperation of their school boards (as no effective directory of school board membership existed). Of the superintendents 84 (63%) took part in the study, and 321 of the 1,260 school board members (26%) participated. The latter represent 101 of the 133 school districts in Connecticut. All the superintendents were men; of school board members, 215 were men and 105 were women.

All respondents were sent the Ringness Attitude Scale (using a 5-point, strongly agree to strongly disagree scoring scale) and a background-data questinnaire. A parametric statistical analysis and analysis of variance were used to present the data.

Of school board members, 30% of the men and 62% of the women had experience of working with a woman administrator; 46% of the superintendents had had such experience. (Other characteristics: women school board members were somewhat less well educated than the men. Of superintendents, 56% had less than a doctoral degree, and 56% were 49 years old or younger.)

Findings: As a group there are no significant differences between superintendents and school board members in attitudes toward women administrators; nor are there between the (male) superintendents and the male school board members. The women board members are more favorable, the men more neutral. There are no marked differences by age (the younger may be slightly more favorable). In general, respondents are neutral to slightly favorable.

For school board members, longer or shorter service and size of school district have no influence on attitudes. The experience of working with a woman makes male board members more favorable, does not influence women board members who are already more favorable. This experience does not tend to make superintendents more favorable.

Amount of education seems to have no appreciable influence on any group.

Asked if sex should be a criterion in choosing administrators, the board members generally answered no; the superintendents also said no except for the positions of secondary school principal and superintendent where there was more tendency to favor a man. (This question drew an 11% no-response rate from superintendents.)

Asked if there was a policy against hiring women administrators, all agreed there was no written policy, but one superintendent and 14 board members (10 of them women) said there was an unwritten policy. Slightly over half of the superintendents, about half of the board members said that women were encouraged to apply for administrative jobs, but only one-third of the women board members (who may be more sensitive to women's difficulties) thought so.

Asked what the action would be if two candidates were equally qualified but one was a woman, the no-response rate was 44%.

Recommendations: Women candidates for administrative positions in Connecticut should remember that they find best support among the women school board members; that there is no written policy against them and no admitted unwritten policy; that they will find little opposition at the lower administrative levels, but can expect difficulties at higher levels and from some of their colleagues.

A bibliography of 72 items is appended.

Taylor, Suzanne S., "Educational Leadership: A Male Domain?," *Phi Delta Kappan* Vol. 60, No. 2, October 1973, pp. 124-128.

Descriptors: Administrative Personnel (Elementary and Secondary), School Boards, Elementary and Secondary Schools

Type of Material: Research report, plus literature review

Subject: Women's position in school leadership

Research: References to studies made between 1963 and 1973, plus the author's own research on attitudes toward women administrators. For this study see abstract on Taylor's doctoral dissertation, "Attitudes of Superintendents and Board of Education Members in Connecticut . . ." 1971.

Findings: The author notes the decline in the proportion of women principals (from 37% to 21%) as well as the decline in number of women superintendents (from 90 to 84) in the past decade). Federal and state departments of education present a similar overwhelming pattern of male leadership. In 1972, the average grade for women in the U. S. Office of Education was GS-7 and the average grade for men was GS-14.

Studies which show the discrepancies in terms of salaries for men and women by years of experience and by rank are cited. Taylor's study showed that, all things being equal, men superintendents were not likely to hire women as administrators. The only variable which appeared to have any significant correlation in the hiring process was that of sex. Half of the school systems studied did not encourage women to train or apply for administrative positions. Yet, other studies have found that women are superior administrators in terms of performance and possession of leadership attributes.

School board leadership is similarly dominated by men, but Taylor's research showed that the women school board members in her sample evidenced the most favorable attitudes towards women administrators.

Men dominate leadership areas important to educational policy-making including leadership positions in teacher associations, research organizations, and related education associations. Men are the top leaders in both the National Education Association and the American Federation of Teachers, AFL-CIO. The author predicts that women will become more involved in the policy-making roles of the national teacher groups, largely becuase of the feminist movement and consciousness-raising techniques of the NEA and AFT women's caucuses.

Finally, the exclusion (at time of writing) of women from Phi Delta Kappa, the national educational honorary society, has isolated them from the power centers of their profession.

A bibliography of 16 items is appended.

Theodore, Athena, "Academic Women in Protest," Expanded version of a paper presented at annual meeting of the Society for the Study of Social Problems, New York, N.Y., January 28, 1974, 79 pp.

Descriptors: Affirmative Action, Attitude of Faculty, Postsecondary Education

Type of Material: Pilot study

Population: Cases drawn from academic women who are active in the movement for equity in higher education.

Date: 1975

Method: Sample obtained from responses to an unstructured questionnaire sent to a group of academic women known to be active in the women's equity movement. Respondents asked to give brief description of their situations, of the discrimination they had encountered, of the strategems they had utilized, their success of failure, and the effects of their actions on themselves and others.

Report is based on 65 responses which represent a "fairly good cross-section" in respect to geographic location, size of institution, discipline, rank, marital status, and age.

Findings: To some extent, women are trying to sensitize academe to inadvertant discrimination; in this women are each other's allies. Some of the younger men are sympathetic, but are not sufficiently secure (lacking status and tenure) to be active themselves. Complaints made through regular university channels are likely to meet with slow, grudging response.

Many women are in marginal positions in academe: temporary or part-time appointments, sometimes teaching outside their precise specialties, sometimes handicapped by anti-nepotism and similar policies. They are, therefore, vulnerable to dismissal and often deprived of institutional supports (such as grants, etc.). When their complaints are made through institutional channels, they are likely to meet with indifference, delay and doubletalk.

Administrative handling of complaints can take the form of appointing committees, commissioning studies, etc., which may delay action rather than solve the problem. Some administrators have used affirmative action as an excuse for not hiring White men in such a way as to raise resentment against women and minorities without actually moving to hire women and minorities. Women who complain are accused of being "feminine"--over-sensitive, hysterical, or "abrasive."

Women find support by acting together; attempts to gain support from the campus in general have sometimes worked, but may be counterproductive. If women go outside the institution--to government agencies or to the courts, a situation of great tension can develop. Nor is the response from government and the courts likely to be efficient or rapid.

Results have been mixed; some women have gained redress in terms of appointments, increases in salary, awards of tenure. Others have found they received little more than token redress; and others that, though they improved the situation for other women, they were not helped themselves. Some have been summarily fired. It is difficult to predict, at present, how much success the movement for equity will have: the increasing awareness by women of their status will spur it; the present economic recession will check it.

No bibliography is appended.

Theodore, Athena, "The Professional Woman: Trends and Prospects," in Theodore, A., ed., The Professional Woman, Schenkman Publishing Company, Cambridge, Mass., 1971, 769 pp.

Descriptors: Women's Working Patterns, Sex Roles, Sex Stereotypes

Commentary by an associate professor of sociology, Simmons College.

Discussion: Most women work in the semi-professions below the highest professional level. More women are working (29% of those over 16 were working in 1940, 41% in 1970) and more married women are working (about three-fifths of working women in 1970), but the relative position of women in the professions has declined. (In 1940 about 45% of those in professional and technical positions were women, in 1970 about 40%, according to Census data).

Most women work in sex-typed positions, e.g., librarianship, nursing, social work, and the feminine-oriented professions are extensions of women's feminine roles outside of work: e.g., nurturing and helping as shown in school teaching and nursing.. When men move into "women's fields" they tend to "professionalize" them, moving into the upper levels. For instance, in home economics women still make up the greatest part of the teachers but men are active in fashion design, and in management.

Both sexes internalize sex stereotypes, and for women the conflict between the feminine roles (wife and mother/nurturing helping) and career aspirations tend to make many young women lower their sights toward more traditional behavior. (Only 15% of women graduate students want a full-time professional career for the first five years after completing their education.) Women tend to shift their goals and plans according to their personal situations, e.g., in relation to marriage and childbearing; men tend to shape career plans according to external circumstances, e.g., ability or failure to meet graduate school requirements. Even when women have succeeded in entering the professions, they are likely to specialize in a feminine aspect of them, for instance, pediatrics in medicine, estate and family relations in law. Married professional women always face conflicting claims between family obligations and professional responsibilities, and the dual-profession family does not guarantee an egalitarian relationship. Most women defer to some extent to their familial role.

True sex discrimination--differentials in financial rewards and the power to form policy between men and women who are equally qualified--does exist, though probably much is not deliberate policy. Making available part-time work, maternity leaves, etc., will help to eliminate discrimination to some extent, but will not solve the fundamental problem. Women must redefine their own roles, and a concerted effort will be required of both sexes to press for equality in employment practices.

No bibliography appended.

Tidball, Elizabeth M., "Perspective on Academic Women and Affirmative Action," Educational Record, Vol. 54, No. 2, Spring 1973, pp. 13-35.

Descriptors: Career Development, Women's Colleges, Role Models

Type of Material: Research Study

Subject: Influence of type of institution on women's achievement

Population: A sample of women of high achievement

Date: Careers formed over the period 1910 to 1960

Method: Random selection of 500 names from each of three editions of Who's Who of American Women (4th, 5th and 6th editions); data for the 59 women's colleges and 289 coeducational colleges attended by the subjects obtained from the Office of Education's Biennial Survey of Education and Earned Degrees Conferred, and from Mount Holyoke Alumnae Quarterly. Relationship studied between the ratio of men and women on faculties and in student bodies to output of women of high achievement.

Findings: The data indicate that there is a significantly higher level of achievement from graduates of women's colleges compared to graduates of coeducational colleges. The number of women faculty in the institutions and the number of women achievers were highly and positively correlated. The results support the contention that the presence of positive role models are beneficial for young women and that a direct method of developing talent among young women would be to increase the presence and improve the status of women academic professionals.

Conversely, the higher the percentage of men students, the fewer the achievements of the women. The author suggests that unless the positive societal contributions of women's colleges are encouraged and aided, their concentrated sources of talent are in jeopardy.

No bibliography appended.

Tobias, Sheila, and Rumbarger, Margaret, L., "Rearrangements in Faculty Schedules, Full-status Part-time Faculty," Women in Higher Education, eds. Furniss, W.T., and Graham, P.A., Washington, D.C., American Council on Education, 1974, pp. 128-137.

Descriptors: Faculty, Part-Time Work, Postsecondary Education

Type of material: Review and comment on part-time faculty status by the Associate Provost, Wesleyan University and the Associate Secretary, American Association of University Professors.

Women have been inclined to accept marginal employment because the rigorous, full-time commitment required during the probationary period of regular faculty positions usually conflicts with demands on a woman during child-rearing years. One solution would be to permit a regular faculty member to assume a reduced teaching load for a short time in order to accommodate increases in his or her family responsibilities and to have the probationary period extended accordingly. Another solution would be the creation of a limited category of part-time appointees who may enjoy full faculty tenure after the expiration of a stipulated probationary period. Provisions for part-time appointments in the Yale University tenure system are included. The document stipulates the time alloted for research and faculty obligations and the conditions of such appointments and benefits.

No bibliography is appended.

U. S. Department of Health, Education, and Welfare, Office of Education, National Center for Educational Statistics. Preliminary Report, Washington, D. C., February 16, 1973.

Descriptors: Faculty, Higher Education, Salaries

Type of Material: Statistical report

Subject: Salaries of Instructional Faculty in Higher Education

Population: Professors, associate professors, assistant professors, and instructors on 9-10 month contracts who teach in universities, 4-year and 2-year colleges (nationwide).

Date: Data for academic year 1972-73.

Method: Preliminary data from the 1972-73 nationwide survey of universities, 4-year and 2-year institutions of postsecondary education. The tabulations do not include: teaching staff of undesignated ranks, lecturers, etc., or those on 11-12 month contracts. Out of total of 2,953 reporting units, (including campuses and branches) 183 (about 7%) did not report on salaries in time for this analysis.

Data Available: Women faculty by academic rank (professors, associate professors, assistant professors, instructors) and by type of institution (universities 4-year and 2-year colleges, publicly and privately controlled) and comparison of percentages of women by rank for the academic years 1962-63 and 1970-1973 Average salary of staff in aggregate U. S. 50 states and D. C. in publicly and privately controlled institutions by academic rank, by sex, and by level of institution.

No bibliography appended.

U. S. Department of Health, Education, and Welfare, Office of Education, National Center for Educational Statistics, Preliminary Report, Washington, D. C., January 29, 1975.

Descriptors: Faculty, Salaries, Tenure.

Type of Material: Statistical Report

Subject: Salaries and tenure of full time instructional faculty

Population: Professors, associate professors, assistant professors, and instructors in universities, 4-year colleges, and 2-year colleges who are on 9-10 month contract.

Date: Data for academic year 1974-75.

Method: Preliminary data from the 1975-75 survey of postsecondary institutions for the United States and District of Columbia.

The tabulation excluded: faculty not on 9-10 month contract, those who contribute their services, and those teaching pre-clinical or clinical medicine. Of the 3,038 reporting units, 2,744 (or 90.3%) responded with information on salary.

Data available: Faculty by sex and rank in public and private institutions; percentage of women by rank for 1972 and 1974; average salary by sex and rank for institutions by type (university, other 4-year, and 2-year colleges) and by control (public, private) for aggregate U. S. and for the 50 states plus District of Columbia. Also full-time tenured faculty by sex and institutional control reported by individual states and outlying areas.

No bibliography appended.

U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, (by Borinsky, Mark, and Metz, A. Stafford), *Labor-Force and Enrollment Status of July 1971-June 1972 College Graduates with Emphasis on Additions to the Teacher Supply*, Washington, D.C., 1975.

Descriptors: Elementary and Secondary School Teachers, Supply and Demand for Teachers, Labor Market

Type of material: Statistical report

Subject: Potential teacher supply

Population: Sample drawn from persons 16 years old and over, the civilian non-institutional population who received baccalaureate and advanced degrees between July 1971 and June 1972.

Date: Data gathered October 1972.

Method: Survey as supplement to Bureau of Census monthly current population surveys (interviews conducted with about 47,000 households in 461 areas covering 50 states and District of Columbia). Questionnaires sent to 900 persons; 867 were returned.

Tables (Appendix B) give standard errors for both estimated numbers and percentages of persons.

Data available: Characteristics of the specific population (by sex, type of degree, major field, certification--elementary, secondary, other), by labor force status (employed, employed as teachers except college, unemployed, not in labor force). Those employed as teachers or eligible (by certification status) but not so employed by education major, sex, type of degree; also those enrolled in college or university (full-time or part-time) by sex, major field, and labor force status.

Findings: Of this specific group, an estimated 22% are employed as teachers (33% of the women, 14% of the men). Over half (57%) of education majors, 14% of humanities majors and under 10% of all other majors are employed as teachers. Of those with teachers' certificates, 55% are employed as teachers.

No bibliography is appended.

U.S. Department of Health, Education, and Welfare, National Center for Educational Statistics, Bulletin 14, "Preliminary Estimates of 1972-73 Full-time Instructional Faculty in Institutions of Higher Education," Washington, D.C., March 1, 1973

Descriptors: Faculty, Academic Ranks, Postsecondary Institutions

Type of material: Statistical Report

Subject: Percentage of women instructional faculty

Population: Full-time instructional faculty on 9-10 month contracts in U.S. and outlying areas

Date: 1972-73 academic year

Method: Institutions of higher education (universities, other 4-year institutions and 2-year colleges) queried as to composition of faculty. Of the 2,682 institutions, 183 (7%) did not respond in time for inclusion in preliminary report.

Data available: Percentage of women full-time instructional faculty by rank, academic level of institution (2-year, other 4-year, universities) and control (public, private); also by sex and salary. Comparison with 1962-63 data.

No bibliography appended

U. S. Department of Health, Education, and Welfare, National Center for Education Statistics, (by Borinsky, Mark and Metz, A.S.), Labor-Force and Enrollment Status of July 1971-June 1972 College Graduates with Emphasis on Additions to the Teacher Supply, U. S. DHEW-NCES, Washington, D. C., 1975.

Descriptors: College Graduates, Employment Opportunities, Supply and Demand of Teachers

Type of Material: Statistical Report

Subject: College graduates as additions to teacher supply

Population: College graduates of July 1971-June 1972, receiving baccalaureate or advanced degrees.

Date: Questionnaires sent October and December 1972

Method: Supplemental questionnaire distributed as part of 1972 Current Population Survey (monthly interview survey of about 47,000 households in 461 areas comprising 923 countries and independent cities covering the 50 states and District of Columbia); 900 persons received questionnaires, 867 returned them. Tables give standard errors for size of estimates and estimated percentages.

Data Available: Degree recipients by sex, type of degree, major field of study; by employment status, employment as teachers or other employment; by certification and eligibility; and by present enrollment in college or university.

No bibliography appended.

U.S. Department of Health, Education, and Welfare, National Center for Educational Statistics, (Osso, Nicholas, research by Westat Research, Inc.), Vocational Education: Characteristics of Students and Staff, 1972, Washington, D.C., 1974, 226 pages.

Descriptors: Secondary Education, Vocational Education Staff.

Type of Material: Statistical report

Subject: Characteristics of vocational education students and staff

Population: Sampling on basis of vocational programs offered

Date: Questionnaires sent October 1972

Method: Main sample from listing in Directory of Secondary Schools with Occupational Curriculums, 1971; sample intended to produce a given number of school programs for each of eight major areas (agriculture, distributive education, health, home economics (homemaking), home economics (occupational), office/business, technical education, and trades/industry). Principal of selected school listed and selected sampled teachers who listed their courses; for a selected course, teacher and students received questionnaires. Supplemental sample of schools listing no vocational education to ascertain if courses had been added (42% response rate), and sample of school districts to ascertain what classes given at district (rather than school) level. Of latter sample, 800 districts queried, 587 reported relevant classes, 778 classes sampled and 79% responded.

Responses received from 2,582 teachers and 45,008 students representing about 90% of sample. Appended tables give estimates and estimated standard error for major characteristics of enrollments and teachers in vocational education in secondary schools.

Findings: The programs show strong differences by sex. Of student enrollments, agriculture, technical education, and trades and industry are dominated by men (94%, 88%, and 86%, respectively); health, home economics (homemaking), home economics (occupational), and office/business are dominated by women (81%, 90%, 86%, and 83%, respectively). Only for distributive education were enrollments similar--52% women and 48% men. The same situation applies to the teachers where men dominate agriculture, technical education, trades/industry, and distributive education (100%, 90%, 89%, and 77% respectively) and women dominate home economics (homemaking) and (occupational), health, and office/business (99%, 98%, 88% and 72% respectively).

Of all teachers 51% were men and 49% women. Minority teachers were about equally divided between men and women (53% and 47%) but three out of four minority teachers under 30 years of age were women. Fifty-seven percent of the women and 43 percent of the men had annual earnings under $10,000, although 46 percent of the men and only 39 percent of the women had had less than five years of vocational educational teaching experience.

The document contains 190 basic data tables on enrollment by types of vocational education classes, characteristics of students, and characteristics of teachers. Much data, however, have not been included by sex and there is need for further analysis.

No bibliography is appended.

U.S. Department of Labor, Bureau of Labor Statistics, "Library Manpower: A Study of Demand and Supply", Bulletin 1852, Washington, D.C., 1975

Descriptors: Labor Market, Librarians

Type of Material: Research study

Subject: Manpower need in libraries, 1975, and projected need, 1985.

Population: Supervising librarians, librarians, and assistants, for the entire U.S.

Date: February through May, 1973 (interview conducted)

Method: 1) Data collected from existing sources: Bureau of Census, Bureau of Labor Statistics, Office of Education; from American Library Association and from statistics compiled by other professional associations.

2) 100 personal interviews were conducted from February to May, 1973, with head librarians, library administrators, personnel officers, and other employees;

3) Projection data from the Office of Education, and U.S. Bureau of Census;

4) Projection method adapted from BLS.

Projections in the areas of manpower supply and demand with considerations given to: U.S. population trends, projections of enrollment in elementary school, planned new or improved services by libraries; government funding; patterns in library automation, networking, and staffing.

Data Available: Demographic characteristics and educational background of library workers by rank (librarians, supervising librarians, technicians, and clerks); by years of education and experience; by sex, by earnings, by age, by size and type of library, (public, academic, school, special). Also data on library workers as part of labor force by sex and earnings.

Bibliography of 133 items appended.

U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*, Issue on Women in the Labor Force, Vol. 98, No. 11, November 1975.

Descriptors: Women's Working Patterns

Type of Material: Statistical report

Subject: Labor force participation of women

Population: Sample drawn from all women in labor force 16 years of age or over in the United States.

Date: 1974 data

Method: The data drawn upon for these reports are obtained from the Current Population Surveys, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample contains about 47,000 households selected to represent the U.S. population 16 years of age and over. Households are interviewed on a rotating basis so that three-fourths of the sample is the same for any two consecutive months.

Findings: In mid-1975, 41% of the nation's entire labor force were women; this includes 46% of all women 16 years of age and over in the population.

Younger women (report by Allyson Sherman Grossman): Young women (16 to 24 years of age) are entering the labor force at a higher rate than any other group; 40% of 16-17 year olds and 63% of 20-24 year olds are in the labor force (1974). Increasing proportions are remaining single, postponing having children or working even though they have young children. Of these young women, nearly 40% are single (compared to 31% in 1964). Of young married women, with or without children, 54% are in the labor force (compared to 37% in 1964); four out of ten have no children (1974) compared to three out of ten in 1964. Even mothers with young children often work--37% are in the labor force. In 1974 the birth rate was the lowest in U.S. history (including the years of the 1930's depression). The median income of young women (20 to 24) is, however, lower than that of young men ($5,850 per year compared to $7,710). The higher the education level, the greater the participation in the labor force.

The middle years (report by Deborah Pisetzner Klein): Labor force participation for women aged 25 to 54 has grown from 37% in 1950 to 54% in 1974. One factor has been growth in sectors that traditionally employ women: education, health, and personal services. The greater increases have occured among women under 45, though participation is still tied to marital status and children. In 1974 about one-third of women with children under 6 are working or seeking work, compared to 60% of those with no children under 18. More widowed, separated or divorced women work: 53% of those with preschool children, 69% of those with school-age children, and 76% of those with children over 18. Eighty-one percent of single women are working. Median weekly earnings for women in this age group is $134 and for men, $223. Women are likely to have a higher unemployment rate, but the duration of unemployment is likely to be shorter than for men.

The older years (report by Beverly Johnson McEaddy): Older women (55 and over) had an increasing role in the labor force from 1950 to 1970 (participation increased from 19% to 25%); but from 1970 to 1974 their participation has declined to 23%. At this point in the life cycle, retirement begins to cut labor force participation, though less for single and divorced/separated women who have fewer resources. Women in this age group earn median weekly salaries of $150 compared to men's $200. Of those not employed, 98% do not want to work. Women's income from private pension plans amounts to about half that of men, and single women receive, on the whole, the lowest incomes of any group.

Twenty-three references are given (includes references for all three articles).

U.S. Department of Labor, Bureau of Labor Statistics, *Special Labor Force Report 151, Employment of Recent College Graduates*, Washington, D.C., 1973

Descriptors: Labor Market, Employment Opportunities

Type of material: Statistical Report

Subject: Employment, field of work

Population: Sample drawn from persons 18 to 35 years old in the civilian, noninstitutional population who completed requirements of baccalaureate, first professional, and advanced degress in 1970 up to survey date, October 1971 ; and who were not enrolled in a college or university.

Date: Survey week ending Ocrober 16, 1971 (one of the monthly Bureau of Census supplemental, sampled surveys)

Method: Interviewer-conducted survey of about 50,000 households in 449 areas drawn from 863 counties and independent cities covering the 50 states and District of Columbia.

Estimates inflate weighted sample results to independent estimates of population based on 1970 census and subsequent population data. The chance is 2 out of 3 that estimates indicate a deviation from a census of less than one standard deviation error, 19 out of 20 that they would differ less than twice the standard error.

Data available: Data given for sample by age, sex, race, type of degree, major field of study; occupation and industry group by sex, first job, and present job; relationship of work to field of study, employment and unemployment by sex, and field of study; method of location of first job by sex, field, and occupation; earnings by sex, occupation, and field of study.

No bibliography appended.

U.S. Department of Labor, Bureau of Labor Statistics, *Special Labor Force Report 160* *Education of Workers: Projections to 1990*, Washington, D.C., 1974.

Descriptors: Labor Market, Population Trends

Type of Material: Statistical report

Subject: Projection of educational attainment of adult workers

Population: The civilian work force of the U.S. who are 16 years of age and over, projected to 1990.

Date: Material drawn from the 1950, 1960, and 1970 census and other source.

Method: Data were obtained for civilian labor force aged 25 and over, from the March Current Population Surveys for 4 periods during the period from 1957 through 1972 ; for ages 18 to 24 from Current Population Surveys for 1957, 1959, and 1964-72; for ages 16 and 17 from 1950, 1960 and 1970 Census and the March 1972 Current Population Survey. Data on population and educational attainment by sex and age were then extrapolated for the 1990 projections.

Data Available: Year of schooling and average annual percent change by age and sex by actual data 1950-72, and projections for 1980, 1985 and 1990.

No bibliography appended.

U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers, March 1973, Special Labor Force Report 161*, Washington, D.C. 1974

Descriptors: Employment Opportunities, Labor Market, Working Women's Patterns

Type of Material: Statistical Report

Subject: Educational attainment of civilian work force

Population: Sample drawn from the civilian noninstitutional work force who are 16 years of age and over.

Date: survey week ending March 17, 1973 (one of the monthly Bureau of Census supplemental, sampled surveys)

Method: Estimates based on the Bureau of Censes March 1973 current population survey conducted by interviewers. Each month, information is collected from about 47,000 households in 461 areas representing the U.S. and District of Columbia.

Estimates inflate weighted sample results to independent estimates of population based on 1970 census and subsequent population data. The change is 2 out of 3 that estimates indicate a deviation from a census of less than one standard deviation error, 19 out of 20 that they would differ less than twice the standard error.

Data Available: Educational attainment, unemployment rate, occupation, and earnings of the civilian work force by age, sex and race. Historical table on labor force by sex and years of schooling for selected years, 1940-1973. Supplementary tables on employment status, labor force participation rate, occupation, and unemployment by years of schooling, age, sex, and race.

No bibliography appended.

U.S. Department of Labor, Bureau of Labor Statistics, Special Labor Force Report 168, Employment of High School Graduates and Dropouts, October 1973, Washington, D.C , 1974.

Descriptors: Employment Opportunities, Labor Market

Type of material: Statistical Report

Subject: Employment, occupation, and unemployment

Population: Sample drawn from persons 16 to 24 years old in the civilian, noninstitutional labor force.

Date: Survey week ending October 13, 1973 (one of the monthly Bureau of Census supplemental, sampled surveys)

Method: Interviewer-conducted survey of about 47,000 households in 461 areas covering the 50 states and the District of Columbia.

Estimates inflate weighted sample results to independent estimates of the population based on 1970 census and subsequent population data. The chance is 2 out of 3 that estimates would indicate a deviation from a census of less than one standard deviation error, 19 out of 20 that they would differ less than twice the standard error.

Data available: Characteristics of the sample - sex, race, enrollment in college - by absense or presence in labor force, employment or unemployment; a review 1962 through current survey of percentages of high school graduates going on to college; occupation, industry group, and hours worked by year last attended school, sex, race, hours worked, marital status of women; unemployment by sex and race; employment-unemployment by graduates-dropouts, by age, sex, and race.

No bibliography appended

U.S. Department of Labor, Bureau of Labor Statistics, "*Tomorrow's Manpower Needs: The National Industry-Occupational Matrix and Other Manpower Data*" Volume IV, Washington, D. C., Revised 1971.

Descriptors: Employment Opportunities, Labor Market, Population Trends

Type of Material: Statistical Report

Subject: Nonagricultural workers in industry in 1970 and projected growth and characteristic change in 1980.

Population: Nonagricultural workers in U.S.

Date: The 1960 and 1970 decennial censuses.

Method: U.S. census data analyzed. Two methods were followed in projection for 1980, 1) Manpower requirements in each industry, 2) Trend in the proportion of occupation in each industry; proportions then multiplied by projected 1980 manpower requirements in the industry to derive estimate of occupational requirements in each industry.

Data available: For 1970 and projections for 1980: 1)national nonagricultural employment of wage and salary workers by industry; 2) total employment by industry; 3) total national employment by occupation; 4) national industry-occupational employment matrix - a. percent distribution of industry employment by occupation; b. percent distribution of occupational employment by industry.

No bibliography appended.

Vetter, Betty M., and Babco, Eleanor L., Professional Women and Minorities, A Manpower Resource Service, Scientific Manpower Commission, Washington, D. C., May 1975, 656 pages.

Descriptors: Academic Rank, Fields of Specialization, Postsecondary Institutions, Women's Working Patterns

Type of Material: Resource service, data compilation

Subject: Workforce availability and participation

Population: Professional women and minorities

Date: Survey of data published from 1970 through 1975; a semi-annual update is planned.

Method: Over 100 data sources were used (source and date appear with data tables and full listing given in bibliography). Nine section reviewers and other members of committees and caucuses (listed in Section RR) contributed to the compilation.

Data available: Subjects cover women and minorities in terms of their enrollment, participation, and degrees earned in the science professions --chemistry and biochemistry, physics, astronomy, mathematics/statistics/computers, geosciences, life sciences, psychology, other social sciences, and engineering, as well as in arts and humanities and in professional occupations overall.

Tabular data and narratives on the current employment status of women and minorities, their membership in professional organizations, and recruitment resources are provided for each of the fields.

Varying types of data on participation of women in the academic work force of each of the disciplines are available. Examples of the findings reported are summarized below.

The Women Chemists' Committee of the American Chemical Society reported that the number of women on the faculties of U.S. chemistry departments offering the doctoral degree in chemistry is far below the number of available qualified women graduates in the same institutions. The percentage of women faculty increased from 1.3 percent in 1971 to 1.7 percent in 1973. During this same time span, however, women received 9.3 percent of the Ph.D.'s in chemistry granted by these institutions.

A major proportion of the psychology population, particularly at the doctorate level, is employed in educational institutions, principally at colleges and universities. However, the proportion of women doctorates employed in elementary/secondary schools in 1970 was considerably higher than the proportion employed in colleges and universities in relation to male doctorates. In 1971-72, women made up only 13 percent of the full-time faculty in 170 departments and 26 percent of the part-time faculty, with women concentrated in the lower academic ranks.

The proportion of women physicists in academic institutions is higher in four-year colleges without graduate programs than in institutions with such programs, and the proportion is lower still in top ranked universities, although the majority of women physicists (and all physicists) at the professional level are employed in educational institutions. Proportionally more women are teaching, fewer are in administration and in R & D than male physicists.

The authors recognize the frequent discrepancies in data from different sources and have attempted to compile data from as many sources as possible so that the range of percentages can offer guidance. Other problems recognized include differences in nomenclature, nonidentical population bases, lack of differentiation of minorities by sex, and lack of up-to-date data.

A bibliography of 114 items is appended.

Vetter, Jan, "Affirmative Action in Faculty Employment Under Executive Order 11246," Report prepared for Administrative Conference of the United States, Washington, DC, September 16, 1974.

Descriptors: Affirmative Action, Discriminatory practices, Higher education

Type of Material: Review of court cases, hearings, etc., plus literature survey of evaluative studies

Population: Institutions of postsecondary education

Date: 1974

Comments: Institutions of higher education are now subject to legislation and an Executive Order that require that they respond to the Equal Employment Opportunities Commission (EEOC), the Department of Labor, Office of Federal Contract Compliance (OFCC), and Equal Pay sections of the Wages and Hours Division, as well as the Office for Civil Rights (OCR) of the Department of Health, Education, and Welfare. Under Title VII of the Civil Rights Act, an individual can file a complaint with EEOC and then bring an action (including a class action) in federal court. EEOC also has power to sue, so that the agency, too, becomes a potential plaintiff. Title IX of the Education Amendments gives federal departments a basis for promulgating regulations against discrimination, but unlike the Executive Order, it does not demand affirmative action.

Statistics regarding affirmative action are fragmentary. Few plans have been approved (between 9 and 19 as of April 1974); OCR received 544 complaints between November 1971 and December 1972. Of these 225 were settled or closed, 76 were under investigation, 107 were not yet reached, and 137 were transferred to EEOC which acquired jurisdiction over higher education in March 1972.

Overlap: These agencies and the court decisions that have followed contribute to the confusion of overlapping jurisdiction, remedies, and standards that now exist, and little has been done to rationalize procedures.

Problems of OCR: OCR, which has the major responsibility for institutions of higher education under the Executive Order and Title IX, lacks adequate staff to perform compliance reviews. Contracts have been awarded without a pre-award review, and it is likely that many higher education contractors have not been through such a review. Although 1,100 of the 2,300 postsecondary institutions are subject to the Executive Order, OCR has exerted most of its energies in inconclusive controversy with only a few institutions. The requirements of the agency's regulations are not clear and conflict with OFCC's regulations. This invites poor administration, inefficiency, and improvised solutions. Since decisions are made outside the structure of the formal sanctions provided, enforcement depends on what the agency negotiates rather than on what the regulations require. Conciliation efforts have been unduly protracted, and the agency has never been willing to utilize its sanctions.

Sanctions: Only a small number of plans have received final approval, yet findings of noncompliance have not been entered, and notices are only rarely issued. Contracts over $1,000,000 have been awarded without a finding of compliance. The severity of the sanctions creates an obstacle to their use; debarment could cause layoffs and curtailment or elimination of research. The complex organization of universities makes it difficult for OCR to frame clear issues. OCR needs a system of graduated sanctions and should not be able to impose them without opportunity for a prior hearing.

Standard and Performance Criteria: Responsibility for hiring and promotion in institutions of higher education tends to be widely diffused; criteria of performance are vague and subject to dispute. Thus, it is difficult to judge to what extent observed differences in rewards by race and sex result from illegal discrimination or from varying tastes or preferences. Women's concentration in lower paying fields may be due to their interests (in teaching rather than research, for example) or their limited mobility as compared to men, but it may also reflect hiring discrimination which restricts their access to better paying institutions, to research facilities, or administrative positions.

The requirement of the Ph.D. is a difficult one to assess. It may be more necessary in some fields than in others or for some institutions than for others. Teaching should perhaps be rated more highly in comparison to research than it is, but teaching performance is difficult to evaluate. Judgments will thus be "intuitive . . . possibly arbitrary." In any case, it cannot be determined if equal employment opportunity is present without performance standards.

Judgments of "underutilization" depend upon availability, and availability determinations depend upon valid selection devices. "Without a fairly precise understanding of such critical terms as 'qualifications,' 'realistic measures' and 'equal' qualifications, different persons can agree on the formulation while holding quite divergent views on the size of pools of qualified labor, what proportion of those qualified are equal and how quickly minority and female employment can be increased without reverse discrimination."

A listing of relevant legislation, court cases, regulations, and guidelines is compiled for each section; in addition, 20 books and journal articles are cited.

Waco, Texas, Independent School District, Texas Division of Women's Equity Action League and others, "Survey of Sex Discrimination," Waco, Texas, April 11, 1973. 18 pp.

Descriptors: Administrative Personnel (Elementary and Secondary), Discriminatory Practices, Elementary and Secondary Education

Type of Material: Research study.

Subject: Sex discrimination in Waco public schools

Population: Personnel of Waco Independent School District

Date: Early 1973

Method: Not stated; involved scrutiny of salary schedules and some financial records.

Findings: The athletic program is virtually for boys only; girls participate in one of the seven Interscholastic League sports; girls' athletics receives less than one percent of the annual sports funding. Plans for improving the program involved boys' activities only.

Vocational classes are sex-typed, girls being counseled into homemaking and hairdressing (Black girls only) and boys into woodshop, auto mechanics, repair and construction trades classes.

Administrative positions are held mainly by men (90%). The Director of Food Services (one of the two women among 13 upper administrative positions) responsible for more than 200 workers and over one million dollar budget receives $2,000 less than any other department directors. Ninety percent of the principals are men (5 out of 46 principalships are held by women; all these are in elementary schools). Though principals are regularly selected from the ranks of teachers, 75% of whom are women, women are not represented in proportions even roughly comensurate with their numbers.

Pay increments are given men coaches of boys' sports; women coaches of girls' activities receive either no compensation or compensation at a rate about one-fourth that of the men. A recent administrative promotion was made from amont the ranks of the all male group of senior high school principals.

No bibliography is appended.

Weissman, Myrna M., et al., "The Faculty Wife: Her Academic Interests and Qualifications," Academic Women on the Move, eds. Rossi, A., and Calderwood, A., Russell Sage Foundation, New York, N.Y., 1973, pp. 187-198.

Descriptors: Anti-Nepotism Policies, Career Choice, Employment Opportunities, Postsecondary Education

Type of material: Research study

Subject: Qualifications, work and academic interests of faculty wives

Population: Sample drawn from wives of faculty members at Yale University

Date: 1972

Method: Ten departments (Political Science, Psychology, History, English, Chemistry, Mathematics, Music, Art and Architecture, Law, and Surgery (of School of Medicine) chosen as representative of University as a whole; questionnaires sent the wives of all faculty members and to all women faculty in the ten departments. Total sample consisted of 408 women (381 faculty wives, 27 women faculty); 282 questionnaires returned (69%), 262 from wives and 20 from women faculty.

Findings: Fifty seven percent had training beyond the B.A., 26 percent had master's degrees, and 28 percent held the Ph.D. or L.L.B. degree. Those that were most highly educated were most likely to be employed or interested in full-time work; the majority of those working were employed in academic settings. Although a substantial number of faculty wives had one to five publications to their credit, most of the employed women served as research associates. Faculty women and faculty wives are similar in job preparation and career orientation, but they differ markedly in their employment position in the university. Many faculty wives expressed dissatisfaction, feeling that they were more disadvantaged in their careers than other faculty women. Many expressed a desire to complete their doctorates on a part-time basis. The problems they described were most characteristic of women living in relatively isolated academic communities, since the university was the only (or major) consumer of highly educated workers.

The authors point out that with this pool of talent not fully utilized, universities should have little concern that there are not enough qualified women to hire as fully employed women academicians.

No bibliography appended.

Weitzman, Lenore, "Affirmative Action Plans for Eliminating Sex Discrimination in Academe," Academic Women on the Move, eds. Rossi, A. and Calderwood, A., Russell Sage Foundation, New York, N.Y., 1973, pp. 463-504.

Descriptors: Affirmative Action, Discriminatory Practices, Graduate Students, Postsecondary Education

Type of material: Review of necessary elements of affirmative action programs by an assistant professor of sociology at University of California at Davis; her research interests are sex-role socialization and the sociology of law.

The author summarizes the legal requirements for affirmative action, suggests effective means of meeting these requirements, and notes some of the programs that have been developed.

She then suggests affirmative action strategies for eliminating sex discrimination in faculty recruitment and hiring programs, and for supporting salary equity, promotions, equity in conditions of employment, and employment benefits. A review of departmental decisions and progress is stated to be an essential part of the affirmative action program. Recruitment communications should state that the department is actively seeking qualified women candidates. Qualified applicants should be solicited from schools that have a large female graduate student body. The department should consider the possibility of hiring the department's own women doctorates. Departments should specify their selection criteria for all faculty appoinments. These criteria should be examined for sex bias. Departments should deem marital and parental status irrelevant. Women should be involved in all stages of the selection process. Standards for distinctions in salary levels should be clearly stated and applied equally to women and men. The author states that part-time faculty appointments and employment benefits such as day-care, maternity leave, and health and equal retirement benefits are important to women faculty. Women graduate students should also be recruited and financial support for part-time students should be provided.

A list of seven references is appended.

White, Martha S., "Psychological and Social Barriers to Women in Science," in Safilios-Rothschild, C. (ed.), Toward a Sociology of Women, Xerox College Publishing, Lexington, Mass., 1972, pp. 300-308.

Descriptors: Career Development, Postsecondary Education

Type of Material: Informal survey, and an informal literature review

Population: Women in science, working at the Radcliffe Institute

Date: Report submitted 1966

Method: Informal survey of women at the Radcliffe Institute which supports part-time women scholars with funds for domestic and child-care help, a work place, and access to the facilities of Harvard and Radcliffe. The scholars are not enrolled in course work, but pursue creative or scholarly work in their fields.

Discussion: Women, especially those who have interrupted their careers, find it difficult to find a place in academic life. The Radcliffe Institute has given some of them a scholar's base from which to pursue their professional work. Under the best of conditions women often find it difficult to obtain sponsorship, engage in professional socialization, to become members in full standing of the academic "club." The Radcliffe Institute has furnished such an academic milieu.

Women are developing alternative career designs, endeavoring to combine part-time work with professional quality. Flexible opportunities are needed, and women can help each other "creating their own retraining and employment opportunities, and instituting new programs appropriate to their needs."

A list of 15 references is appended.

Wisconsin, University of, Association of Faculty Women, The Status of Professional Women at the University of Wisconsin: Proposals for Change, Madison, Wisconsin, April 1971, 12 pages.

Descriptors: Academic Rank, Faculty, Salaries, Tenure

Type of Material: Research study

Subject: Status of academic women at the University of Wisconsin

Population: Academic women and the University of Wisconsin

Date: Data pertain to the academic year 1970-71

Method: Specific methods not detailed; future reports to utilize other aspects of the study. The study reports the results of statistical analyses of the status of academic women as compared with that of men by numbers, rank, department and by salary.

Findings: Evidence from this study substantiates the findings of the Department of Health, Education, and Welfare, that sex discrimination exists at the University of Wisconsin. Specifically, it was found that women's mean salaries range from $6 to $5,180 lower than those of men. Women are concentrated in lower academic positions throughout the university; they comprise 5% of the full professors, 7% of associate professors, 12% of assistant professors and 51% of instructors. Qualified faculty wives are likely to be relegated to positions with low salaries and without tenure. Women are especially likely to hold "special projects" appointments funded by grants which are short term and do not lead to tenure.

It was recommended that recruitment for all appointments be open; announcements for positions should specify requirements; and that prestigious college background, age, sex, and marital status be considered irrelevant. Persons hired in non-tenured or short-term posts should be considered for permanent positions or promotions at the end of the short-term contract. Equitable salary schedules for each rank, activity, and time category should be developed in each department. Special attention should be given to eliminating inequities which may have been imposed by anti-nepotism rule in the past.

Qualified women and men should be considered for part-time tenured positions. All committees considering hiring, promotions, and salary should have women members.

No bibliography is appended.

Zimmerman, Jeanne N., "The Status of Women in Educational Administrative Positions within the Central Offices of Public Schools," Doctoral Dissertation, Temple University, Philadelphia, Pennsylvania, 1971.

Descriptors: Administrative Personnel (Elementary and Secondary), Career Choice, Women's Life Patterns, Women's Working Patterns

Type of Material: Research Study

Subject: Characteristics of women school administrators

Population: All women employed as administrators, staff officers, central office administrators, or part of superintendents' teams during 1969-70, in Pennsylvania school districts of 6,000 to 100,000 pupils

Date: Questionnaires sent June-July 1970 (including followups)

Method: All such women administrators listed in the Pennsylvania State Department of Education Directory were contacted: 167 (77.6%) responded to the questionnaire. A followup interview with 21 non-respondents showed no major differences between respondents and non-respondents.

Analysis: Straight report of numbers and percentages responding.

Findings: Characteristics of the group: older women (average age of respondents is over 50 years; only 4% under 36 years of age); unusually large percentage (41%) single; the first or second born in the family; not generally from a highly educated family; both parents encouraged college education. Most of those who were married, a professional or manager as a husband (54%) or in education (23%). Families were small: 31% had no children; 25% one child, 27% two children, 16% three or more.

Professional Training: 95% had the bachelor's degree or more; 23% had the bachelor's degree or the degree plus course work; 62% had the master's or a master's plus more credits; 10% held a doctorate, two-thirds of whom were single. Only 18% received the master's degree before age 26; 44% received it between the ages 26 and 35; 38% were 36 or over. Only three of the 17 holding the doctorate received it before they were 36 years of age. Contemplating further study: 47% of the single women, and 66% of the married. Nearly all are certified; the average woman in the group held two certificates.

Experience: 78% have taught; of those with teaching experience, 82% have taught for six year or more. About 38% have worked in only one school system; 34% in two; 28% in three or more. Married women have moved more often (but not much more often) than single women. Leaves of absence: 75% have had none; 17% had had one; nearly half have had sabbaticals, however, for travel or study. Only 7% have had extended leave for maternity reasons.

Reasons for terminating work: (in order) child care, another job, husband's change of job or residence. About half have done some administrative work outside of the public school system; but about 77% have held no other position in educational administration than the present position. They are active in professional societies; about seven in ten belong to the National Education Association; most belong to at least three professional organizations.

Their positions include subject coordinator, director of various services (food service, health, instructional materials, etc.), business manager, assistant superintendent, but not full superintendent. Only about one in five anticipates some change of position or promotion. Nearly three-fourths (72%) have permanent professional contracts; 13% have annual contracts; 5% have provisional professional contracts, and 10% have none. Of the group 55% have spent five years or less in the current job; 19% have spent six to ten years; 19% have spent 11 to 20 years, and 7% have served 21 years or more. There is considerable variation in salary; 10% receive less than $10,000, 64% receive between $10,000 and $15,000. Salary is influenced by size of school district (the larger districts pay more), amount of formal training, and by length of working year. Three-quarters have staff rather than line positions; 93% report to a man rather than to a woman, and fewer than one in six followed a man in her present job. The women went into administrative work because (in rank order of reasons given) they were offered it, were encouraged to apply by superiors, felt the work was important, liked leadership opportunities, felt the job gave more power to serve education, were encouraged bu equals. Nearly six in ten came to their present position because of encouragement and a job offer from the office where they now work. Most found it very easy, therefore, to obtain their positions, but those mentioning difficulty most frequently give reasons connected with their sex (60%--women are expected to be followers, some colleagues resent working with women, etc.); second most important general reason is conflict with home duties (25% mention). The future: 87% expect to continue in present position (includes those who expect to retire soon). Those that contemplate another job think first of college level teaching.

A bibliography of 88 items is appended.

I. B. INDEX OF ABSTRACTS BY MAJOR SUBJECT MATTER

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II. B. BIBLIOGRAPHY OF STUDIES OF INDIVIDUAL EDUCATIONAL INSTITUTIONS

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